

# 118584 ORFE SEARCH REQUEST FORM

Requestor's Name: Jeffrey E. Russel Serial Number: ~~09/10/04~~ 09/12/72  
Date: 4-2-2004 Phone: 571.272.0869 Art Unit: 4657  
*REN 304 (marker) 3019 (office)*

## Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

Please search SEQ ID NO: 16 (PXAXYHA) in the U.S. patent application sequence database (pending, published, issued) in Genesag/Swisspat/PIR, and in STN. Please require any hits to have 20 or fewer residues.

Thank you.  
JER

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## STAFF USE ONLY

Date completed: 04-05-04  
Searcher: Beverly e 2528  
Terminal time: \_\_\_\_\_  
Elapsed time: \_\_\_\_\_  
CPU time: \_\_\_\_\_  
Total time: \_\_\_\_\_  
Number of Searches: \_\_\_\_\_  
Number of Databases: 2

Search Site  
\_\_\_\_ STIC  
\_\_\_\_ CM-1  
\_\_\_\_ Pre-S

### Type of Search

\_\_\_\_ N.A. Sequence  
\_\_\_\_ A.A. Sequence  
\_\_\_\_ Structure  
\_\_\_\_ Bibliographic

### Vendors

\_\_\_\_ IG  
\_\_\_\_ ☒ STN  
\_\_\_\_ Dialog  
\_\_\_\_ APS  
\_\_\_\_ Geninfo  
\_\_\_\_ SDC  
\_\_\_\_ DARC/Questel  
\_\_\_\_ ☒ Other CGN

09/972772

L1 FILE 'REGISTRY' ENTERED AT 09:56:44 ON 05 APR 2004  
32 S P.A..HA/SQSP AND SQL=<20

L2 FILE 'HCAPLUS' ENTERED AT 09:58:02 ON 05 APR 2004  
25 S L1

L2 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
ED Entered STN: 11 Jul 2003  
ACCESSION NUMBER: 2003:532836 HCAPLUS  
DOCUMENT NUMBER: 139:97654  
TITLE: Lysine labeling reagent and methods of use  
INVENTOR(S): Peters, Eric C.; Brock, Ansgar; Ericson,  
Christer  
PATENT ASSIGNEE(S): IRM LLC, Bermuda  
SOURCE: PCT Int. Appl., 63 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003056299	A2	20030710	WO 2002-US35581	20021105
WO 2003056299	A3	20040226		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003228700	A1	20031211	US 2002-289009	20021105
PRIORITY APPLN. INFO.:				
			US 2001-332988P	P 20011105
			US 2002-385835P	P 20020603
			US 2002-410382P	P 20020912

OTHER SOURCE(S): MARPAT 139:97654

AB The present invention provides compds. which are useful as multifunctional labels in proteomics studies. The labels of the present invention are both lysine-specific and increase the overall sequence coverage obtained in polypeptide mapping expts., by for example, increasing the ionization efficiencies of lysine-terminated tryptic fragments. In certain aspects, the labels of the present invention can be used to measure differential quantitation, as for example, deuterium(s) can easily be introduced during their synthesis. In one aspect, a C-terminal derivatized lysine biases the fragment ion intensities strongly toward C-terminal fragment ions, resulting in a highly simplified tandem mass spectrum. In further aspects, the number of lysine residues can be determined in a polypeptide. 2-Methoxy-4,5-dihydro-1H-imidazole and 2-methoxy-4,5-tetradeutero-1H-imidazole were prepared and used to label the lysine residues in myoglobin. The myoglobin was digested

with trypsin and the peptides were analyzed by MALDI mass spectrometry.

IT 557064-43-4 557064-44-5 557064-45-6

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence of tryptic peptides of horse myoglobin, derivatization and MALDI mass spectrometry in relation to; lysine-containing peptide labeling reagent and use in proteomics and mass spectrometry)

L2 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 30 Jun 2003

ACCESSION NUMBER: 2003:495202 HCAPLUS

DOCUMENT NUMBER: 139:163463

TITLE: Biopanning of endotoxin-specific phage displayed peptides

AUTHOR(S): Thomas, Celestine J.; Sharma, Shilpi; Kumar, Gyanendra; Visweswariah, Sandhya S.; Surolia, Avadhesh

CORPORATE SOURCE: Molecular Biophysics Unit, Indian Institute of Science, Bangalore, 560012, India

SOURCE: Biochemical and Biophysical Research Communications (2003), 307(1), 133-138  
CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Systemic bacterial infections frequently lead to a plethora of symptoms termed "endotoxic shock" or "sepsis." Characterized by hypotension, coagulation abnormalities, and multiple organ failure, treatment of sepsis still remains mostly supportive. Of the various exptl. therapeutic interventional strategies, neutralization of endotoxin by peptides or proteins is becoming popular recently. Hence, design of endotoxin binding peptides is gaining currency as their structural complexity and mode of recognition of endotoxin precludes mounting of resistance against them by the susceptible bacteria by genetic recombination, mutation, etc. Earlier work from our laboratory had shown that the amphiphilic cationic peptides are good ligands for endotoxin binding. In this study, we report the results of studies with the 12 selected lipid A binding phage displayed peptides by biopanning of a repertoire of a random pentadecapeptide library displayed on the filamentous M-13 phage. A comparison of the sequences revealed no consensus sequence between the 12 selected peptides suggesting that the lipid A binding motif is not sequence specific which is in accord with the sequence variation seen with the naturally occurring anti-microbial and/or endotoxin binding peptides. Thus, the flexibility of the peptides coupled with their plasticity in recognizing the lipid A moiety, explains their tight binding to endotoxin. At a structural level, asym. distribution of the charged polar residues on one face of the helix and non-polar residues on the opposite face appears to correlate with their activity.

IT 574743-62-7

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(biopanning of endotoxin-specific phage displayed peptides)

09/972772

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L2 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 13 Jun 2003

ACCESSION NUMBER: 2003:455053 HCAPLUS

DOCUMENT NUMBER: 139:7179

TITLE: Preparation of compounds comprising a methionine  
aminopeptidase 2 (MetAP-2) inhibitory core  
coupled to a peptide for modulation of  
angiogenesis

INVENTOR(S): Olson, Gary L.; Self, Christopher; Lee, Lily;  
Cook, Charles Michael; Birktoft, Jens; Morgan,  
Barry; Arico-Muendel, Christopher C.

PATENT ASSIGNEE(S): Praecis Pharmaceuticals Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of  
U.S. Ser. No. 1,945.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003109671	A1	20030612	US 2002-138935	20020502
US 6548477	B1	20030415	US 2000-704251	20001101
US 2002193298	A1	20021219	US 2001-972772	20011005
US 2002151493	A1	20021017	US 2001-1945	20011101
WO 2003092608	A2	20031113	WO 2003-US13623	20030502
WO 2003092608	A3	20040115		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,  
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,  
NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,  
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT,  
LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:  
US 2000-704251 A2 20001101  
US 2001-972772 A2 20011005  
US 2001-1945 A2 20011101  
US 2002-138935 A 20020502

OTHER SOURCE(S): MARPAT 139:7179

AB The invention provides angiogenesis inhibitor compds.

A-W-CONR1-Xn-CR3R4-Z-P [A is a Met-AP-2 inhibitory core; W is O or  
NR2; R1, R2 are H or alkyl; X is alkylene or substituted alkylene; n  
is 0 or 1; R3, R4 are H, (un)substituted alkyl or (hetero)aryl; or  
CR3R4 is carbocyclic, heterocyclic, or alkylene; Z is CO or  
alkylene-CO and P is a peptide comprising 1 to about 100 amino acid  
residues attached at its amino terminus to Z or a group OR5 or  
NR6R7, where R5-R7 are H, alkyl, (un)substituted alkyl or

azacycloalkyl or NR6R7 is (un)substituted heterocyclyl; or Z is O, NR6 (R8 = H or alkyl), alkylene-O, or alkylene-NR8 and P is H, alkyl or a peptide consisting of 1 to about 100 amino acid residues attached at its carboxy terminus to Z] comprising a MetAP-2 inhibitory core coupled to a peptide, as well as pharmaceutical compns. comprising the angiogenesis inhibitor compds. Thus, (3R,4S,5S,6R)-5-methoxy-4-[(2R, 3R)-2-methyl-3-(3-methylbut-2-enyl)oxiranyl]-1-oxaspiro[2.5]oct-6-ylcarbonyl-L-valine Me ester, prepared by acylation of L-valine Me ester hydrochloride, showed IC50 = 4.7 nM for inhibition of MetAP-2.

IT **478412-67-8P 478412-68-9P**

RL: PNU (Preparation, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of peptide MetAP-2 inhibitory core derivs. for modulation of angiogenesis)

L2 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 09 May 2003

ACCESSION NUMBER: 2003:356176 HCAPLUS

DOCUMENT NUMBER: 138:348758

TITLE: Endothelial-cell binding peptides for diagnosis and therapy

INVENTOR(S): Gyuris, Jenő; Lamphere, Lou; Morris, Aaron J.; Tsaion, Katherine

PATENT ASSIGNEE(S): GPC Biotech Inc., USA

SOURCE: PCT Int. Appl., 126 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003037172	A2	20030508	WO 2002-US35258	20021101
WO 2003037172	C2	20031211		
WO 2003037172	A3	20040205		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003166004 A1 20030904 US 2002-286457 20021101

PRIORITY APPLN. INFO.:

US 2001-334822P P 20011101

AB The present invention relates to peptides and their derivs. which bind to endothelial cells and inhibit their proliferation in in vitro assays, e.g., also referred to herein as endothelial cell binding peptide (ECBP) or ECBP sequence. These compns. may be combined with a pharmaceutically acceptable excipient or carrier and

09/972772

used to inhibit angiogenesis and angiogenesis-related diseases such as cancer, arthritis, macular degeneration, and diabetic retinopathy.

IT **518998-85-1**

RL: DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use);  
BIOL (Biological study); USES (Uses)  
(endothelial-cell binding peptides for diagnosis and therapy of angiogenesis-related disorders)

L2 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 28 Mar 2003

ACCESSION NUMBER: 2003:242370 HCAPLUS

DOCUMENT NUMBER: 138:267686

TITLE: Purification of enzymes involved in coenzyme metabolism from pathogenic bacteria for characterization in development of targets for antibiotics

INVENTOR(S): Edwards, Aled; Dharamsi, Akil; Vedadi, Masoud; Alam, Muhammad Zahoor; Awrey, Donald; Beattie, Bryan; Canadien, Veronica; Domagala, Megan; Houston, Simon; Kanagarajah, Dhushy; Li, Qin; Necakov, Sasha; Nethery, Kathleen; Pinder, Benjamin; Sheldrick, Bay; Vallee, Francois; Viola, Cristina

PATENT ASSIGNEE(S): Affinium Pharmaceuticals, Inc., Can.

SOURCE: PCT Int. Appl., 256 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003025006	A2	20030327	WO 2002-CA1427	20020920
WO 2003025006	A3	20040219		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:

US 2001-324115P P 20010921  
US 2001-325337P P 20010927  
US 2001-326321P P 20011001  
US 2001-326378P P 20011001  
US 2001-326820P P 20011003  
US 2001-335702P P 20011025  
US 2001-340536P P 20011026  
US 2001-350907P P 20011029

AB Methods of purifying and characterizing enzymes that may play a role

Searcher : Shears 571-272-2528

09/972772

in cofactor metabolism in pathogenic bacteria are described. The proteins may be useful as targets for antibiotics and methods for identifying regions of the proteins that may be targeted by drugs are described. The invention also provides biochem. and biophys. characteristics of those polypeptides.

IT 503535-18-0

RL: PRP (Properties)

(unclaimed sequence; purification of enzymes involved in coenzyme metabolism from pathogenic bacteria for characterization in development of targets for antibiotics)

L2 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 20 Dec 2002

ACCESSION NUMBER: 2002:965105 HCAPLUS

DOCUMENT NUMBER: 138:33374

TITLE: Therapeutic agents and methods of use thereof  
for the modulation of angiogenesis

INVENTOR(S): Olson, Gary L.; Self, Christopher; Lee, Lily;  
Cook, Charles Michael; Birktoft, Jens

PATENT ASSIGNEE(S): Praecis Pharmaceuticals Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 38 pp., Cont.-in-part of  
U. S. Ser. No. 704,251.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002193298	A1	20021219	US 2001-972772	20011005
US 6548477	B1	20030415	US 2000-704251	20001101
WO 2002042295	A2	20020530	WO 2001-US46086	20011101
WO 2002042295	A3	20030220		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002039479	A5	20020603	AU 2002-39479	20011101
US 2002151493	A1	20021017	US 2001-1945	20011101
EP 1330447	A2	20030730	EP 2001-987241	20011101
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US 2003109671	A1	20030612	US 2002-138935	20020502
NO 2003001978	A	20030611	NO 2003-1978	20030430
PRIORITY APPLN. INFO.:			US 2000-704251	A2 20001101
			US 2001-972772	A 20011005
			US 2001-1945	A2 20011101
			WO 2001-US46086	W 20011101

OTHER SOURCE(S): MARPAT 138:33374

AB The present invention provides angiogenesis inhibitor compds. comprising a MetAP-2 (methionine aminopeptidase-2)-inhibitory fumagillin core coupled to a peptide, as well as pharmaceutical compns. comprising the angiogenesis inhibitor compds. and a pharmaceutically acceptable carrier. The present invention also provides methods of treating an angiogenic disease, e.g., cancer, in a subject by administering to the subject a therapeutically effective amount of one or more of the angiogenesis inhibitor compds. of the invention.

IT **478412-67-8P 478412-68-9P**

RL: PNU (Preparation, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(MetAP-2-inhibitory peptides for the modulation of angiogenesis)

L2 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 21 Oct 2002

ACCESSION NUMBER: 2002:798426 HCAPLUS

DOCUMENT NUMBER: 138:150397

TITLE: Peptidomics of the larval Drosophila melanogaster central nervous system

AUTHOR(S): Baggerman, Geert; Cerstiaens, Anja; De Loof, Arnold; Schoofs, Liliane

CORPORATE SOURCE: Laboratory of Developmental Physiology and Molecular Biology, Katholieke Universiteit Leuven, Louvain, B-3000, Belg.

SOURCE: Journal of Biological Chemistry (2002), 277(43), 40368-40374

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Neuropeptides regulate most, if not all, biol. processes in the animal kingdom, but only seven have been isolated and sequenced from Drosophila melanogaster. In analogy with the proteomics technol., where all proteins expressed in a cell or tissue are analyzed, the peptidomics approach aims at the simultaneous identification of the whole peptidome of a cell or tissue, i.e. all expressed peptides with their posttranslational modifications. Using nanoscale liquid chromatog. combined with tandem mass spectrometry and data base mining, we analyzed the peptidome of the larval Drosophila central nervous system at the amino acid sequence level. We were able to provide biochem. evidence for the presence of 28 neuropeptides using an extract of only 50 larval Drosophila central nervous systems. Eighteen of these peptides are encoded in previously cloned or annotated precursor genes, although not all of them were predicted correctly. Eleven of these peptides were never purified before. Eight other peptides are entirely novel and are encoded in five different, not yet annotated genes. This neuropeptide expression profiling study also opens perspectives for other eukaryotic model systems, for which genome projects are completed or in progress.

IT **495402-07-8P**

RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP



(Preparation)

(neuropeptides of larval *Drosophila melanogaster* central nervous system)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L2 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 25 Jun 2002

ACCESSION NUMBER: 2002:474815 HCAPLUS

DOCUMENT NUMBER: 137:321810

TITLE: The interaction of a peptide with a scrambled  
hydrophobic/hydrophilic sequence  
(Pro-Asp-Ala-Asp-Ala-His-Ala-His-Ala-His-Ala-Ala-  
Ala-His-Gly) (PADH) with DPPC model membranes: a  
DSC study

AUTHOR(S): Grasso, Domenico; Milardi, Danilo; La Rosa,  
Carmelo; Impellizzeri, Giuseppe; Pappalardo,  
Giuseppe

CORPORATE SOURCE: Dipartimento di Scienze Chimiche, Universita' di  
Catania, Catania, 95125, Italy

SOURCE: Thermochimica Acta (2002), 390(1-2), 73-78

CODEN: THACAS; ISSN: 0040-6031

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Depending on their hydrophobicity, peptides can interact differently with lipid membranes inducing dramatic modifications into their host systems. In the present paper, the interaction of a synthetic peptide with a scrambled hydrophobic/hydrophilic sequence (Pro-Asp-Ala-Asp-Ala-His-Ala-His-Ala-His-Ala-Ala-His-Gly) (PADH) with 1,2-dipalmitoyl-sn-glycero-3-phosphocholine (DPPC) model membranes has been investigated by differential scanning calorimetry (DSC), adopting three different exptl. approaches. In the first, the peptide is forced to be included into the hydrocarbon region of the lipid bilayer, by codissolving it with the lipid giving rise to mixed multilamellar vesicles-peptide systems; in the second, this system is passed through an extruder, thus producing large unilamellar vesicles-peptide systems; in the third, it is allowed to interact with the external surface of the membrane. The whole of the DSC results obtained have shown that the incorporation of the peptide into the lipid bilayer by means of the first method induces a decrease in the enthalpy of the gel-liquid crystal transition of the membrane and a shift of the transition to the lower temps., thus resembling, in spite of its prevalently hydrophilic nature, the behavior of transbilayer hydrophobic peptides. The extrusion of these systems creates unilamellar vesicles free of peptides but of smaller size as evidenced by the decreased cooperativity of the transition. The peptide, added externally to the DPPC model membrane, has no effect on the phase behavior of the bilayer. These findings suggest that the effect of the interaction of scrambled hydrophobic/hydrophilic peptides into lipid bilayers strongly affects the thermotropic behavior of the host membrane depending on the preparation method of the lipid/peptide systems. The whole of the results obtained in the present paper can be useful in approaching studies of bioactive peptides/lipids systems.

09/972772

IT 214628-28-1

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
(Biological study)

(effect of scrambled hydrophobic/hydrophilic sequence-containing  
peptide on thermotropic behavior of DPPC model membranes)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L2 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 21 Jun 2002

ACCESSION NUMBER: 2002:466188 HCAPLUS

DOCUMENT NUMBER: 137:43263

TITLE: Mouse laminin  $\alpha$ 4 chain G domain  
heparin-binding sites and therapeutic uses

INVENTOR(S): Kitagawa, Yasuo; Shitara, Kenya; Ohki, Yuji

PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 139 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048349	A1	20020620	WO 2001-JP5976	20010710
WO 2002048349	C1	20020718		

W: CA, JP, US

PRIORITY APPLN. INFO.: JP 2000-376899 A 20001212

AB Fragments of laminin  $\alpha$ 4 chain G domain capable of binding to heparin, recombinant expression, and use in inhibiting cell binding to extracellular matrix, contact of cells with capillary vessels, growth of cancer, signal transduction of a heparin-binding signal transducing mol., cell proliferation, differentiation and survival of cells, are disclosed. Fusion proteins of this fragment with a peptide tag is claimed. G domains of the mouse laminin  $\alpha$ 1 and  $\alpha$ 4 chains consisting of its five subdomains LG1-LG5 were overexpressed in Chinese hamster ovary cells and purified by heparin chromatog.  $\alpha$ 1LG1-LG5 and  $\alpha$ 4LG1-LG5 eluted at NaCl concns. of 0.30 and 0.47 M, resp. In solid phase binding assays with immobilized heparin, half-maximal concns. of 14 ( $\alpha$ 1LG1-LG5) and 1.4 nM ( $\alpha$ 4LG1-LG5) were observed. N-Glycan cleavage of  $\alpha$ 4LG1-LG5 did not affect affinity to heparin. The affinity of  $\alpha$ 4LG1-LG5 was significantly reduced upon denaturation with 8 M urea but could be recovered by removing urea. Chymotrypsin digestion of  $\alpha$ 4LG1-LG5 yielded high and low heparin affinity fragments containing either the  $\alpha$ 4LG4-LG5 or  $\alpha$ 4LG2-LG3 modules, resp. Trypsin digestion of heparin-bound  $\alpha$ 4LG1-LG5 yielded a high affinity fragment of about 190 residues corresponding to the  $\alpha$ 4LG4 module, indicating that the high affinity binding site is contained within  $\alpha$ 4LG4. Competition for heparin binding of synthetic peptides covering the  $\alpha$ 4LG4 region with complete  $\alpha$ 4LG1-LG5 suggests that the sequence AHGRL1521 is crucial for high affinity binding. Introduction of mutations H1518A or R1520A in glutathione

Searcher : Shears 571-272-2528

S-transferase fusion protein of the  $\alpha$ 4LG4 module produced in *Escherichia coli* markedly reduced heparin binding activity of the wild type. When compared with the known structure of  $\alpha$ 2LG5, this sequence corresponds to the turn connecting strands E and F of the 14-stranded  $\beta$ -sheet sandwich, which is opposite to the proposed binding sites for calcium ion,  $\alpha$ -dystroglycan, and heparan sulfate. Wnt1 release from the cells and tumor growth inhibition by  $\alpha$ 4LG4 were observed. Induction of angiogenesis and fat cells was also observed.

IT 437767-29-8

RL: PRP (Properties)

(unclaimed sequence; mouse laminin  $\alpha$ 4 chain G domain  
heparin-binding sites and therapeutic uses)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L2 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 12 May 2002

ACCESSION NUMBER: 2002:353610 HCAPLUS

DOCUMENT NUMBER: 136:364964

TITLE: Genes encoding endothelial cell-specific protein  
ECSM1 and ECSM4 and their use in imaging,  
diagnosis and treatment of diseases associated  
with vascular endothelium

INVENTOR(S): Bicknell, Roy; Huminiecki, Lukasz

PATENT ASSIGNEE(S): Imperial Cancer Research Technology Limited, UK

SOURCE: PCT Int. Appl., 248 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036771	A2	20020510	WO 2001-GB4906	20011106
WO 2002036771	A3	20020906		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002023784	A5	20020515	AU 2002-23784	20011106
EP 1334194	A2	20030813	EP 2001-992777	20011106
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRIORITY APPLN. INFO.:			US 2000-245566P	P 20001106
			US 2001-273662P	P 20010307
			WO 2001-GB4906	W 20011106

AB The present invention relates to endothelial cell-specific genes and encoded polypeptides and materials and uses thereof in the imaging, diagnosis, and treatment of conditions involving the vascular endothelium. Two independent strategies for differential expression anal. were combined with exptl. verification to identify genes specifically or preferentially expressed in vascular endothelium: (1) EST cluster expression anal. in the human UniGene gene index, and (2) use of the data-mining tool SAGEmap xProfiler. Two highly endothelial-selective genes are provided and designated as endothelial cell-specific mol. 1 (ECSM1) and magic roundabout (endothelial cell-specific mols. 4; ECSM4). ECSM4 shows similar endothelial cell specificity to the marker currently accepted in the art as the best endothelial cell marker (von Willibrand factor). ECSM1 has no protein or nucleotide homologs and is most likely to code for a small protein of 103 amino acids (the longest and most upstream open reading frame which was identified in the contig sequence). The human magic roundabout (ECSM4) cDNA clone has been previously identified (GenBank AK000805) and encodes a protein much larger than the 417 amino acids coded in the AK000805 clone since the ORF has no apparent up-stream limit. These endothelial cell-specific genes provides new pharmaceutical targets for imaging, diagnosing, and treating medical conditions involving the endothelium.

IT 422320-93-2

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(peptide fragment; genes encoding endothelial cell-specific protein ECSM1 and ECSM4 and their use in imaging, diagnosis and treatment of diseases associated with vascular endothelium)

L2 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 11 Dec 2001

ACCESSION NUMBER: 2001:890675 HCAPLUS

DOCUMENT NUMBER: 136:163197

TITLE: DNA Hydrolysis and Oxidative Cleavage by Metal-Binding Peptides Tethered to Rhodium Intercalators

AUTHOR(S): Copeland, Kimberly D.; Fitzsimons, Marilena P.; Houser, Robert P.; Barton, Jacqueline K.

CORPORATE SOURCE: Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SOURCE: Biochemistry (2002), 41(1), 343-356

CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB With the goal of developing artificial nucleases for DNA hydrolysis, metal-coordinating peptides have been tethered to a DNA-intercalating rhodium complex to deliver metal ions to the sugar-phosphate backbone. The intercalator, [Rh(phi)2bpy']Cl3 [phi = 9,10-phenanthrenequinone diimine; bpy' = 4-(butyric acid)-4'-methyl-2,2'-bipyridine], provides DNA binding affinity, and a metal-binding peptide contributes reactivity. This strategy for DNA hydrolysis is a general one, and zinc(II)-promoted cleavage has been demonstrated for two widely different tethered metallopeptides.

An intercalator coupled with a de novo-designed  $\alpha$  helix containing two histidine residues has been demonstrated to cleave both supercoiled plasmid and linear DNA substrates. Mutation of this peptide confirms that the two histidine residues are essential for  $Zn^{2+}$  binding and cleavage. Zinc(II)-promoted cleavage of supercoiled plasmid has also been demonstrated with an intercalator-peptide conjugate containing acidic residues and modeled after the active site of the BamHI endonuclease. Other redox-active metals, such as copper, have been delivered to DNA with our intercalator-peptide conjugates to effect oxidative chemical Copper cleavage expts. and photocleavage expts. with  $[Rh(\phi)_2bpy']^{3+}$  complement the hydrolysis studies and provide structural information about the interactions between the tethered metalloptides and DNA. Variation of the rhodium intercalator was also explored, but with a mismatch-specific intercalator, no site-specific hydrolysis was found. These expts., in which the peptide, the metal cation, and the intercalator components of the conjugate are each varied, illustrate some of the issues involved in creating an artificial nuclease with DNA intercalators and metalloptides.

IT 398148-67-9 398148-70-4

RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL

(Biological study); RACT (Reactant or reagent)

(DNA hydrolysis and oxidative cleavage by metal-binding peptides tethered to rhodium intercalators)

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L2 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 05 Oct 1998

ACCESSION NUMBER: 1998:625502 HCAPLUS

DOCUMENT NUMBER: 129:302879

TITLE: Synthesis, spectroscopic characterization, and  
metal ion interaction of a new  $\alpha$ -helical  
peptide

AUTHOR(S): Impellizzeri, Giuseppe; Pappalardo, Giuseppe;  
Purrello, Roberto; Rizzarelli, Enrico; Santoro,  
Anna Maria

CORPORATE SOURCE: Dipartimento Scienze Chimiche, Universita  
Catania, Catania, 95125, Italy

SOURCE: Chemistry--A European Journal (1998), 4(9),  
1791-1798

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A 15-mer model peptide, H-Pro-Asp-Ala-Asp-Ala-His-Ala-His-Ala-His-Ala-Ala-Ala-His-Gly-OH, was synthesized by the solid phase method. The solution structure of this peptide was investigated by CD and NMR spectroscopy. CD results indicated that the peptide adopts a helical conformation in the presence of 2,2,2-trifluoroethanol (TFE) and its helicity is influenced by pH. NMR studies, carried out in 1:1 H<sub>2</sub>O/TFE, allowed the sequence-specific assignment of the proton resonances to be made, in addition to a more precise location of the helical structure in the peptide sequence. The ability of different divalent metal ions (Cu<sup>2+</sup>, Ni<sup>2+</sup>) to induce an  $\alpha$ -helix was also

investigated in aqueous solution by means of CD spectroscopy; the results obtained indicate that Ni<sup>2+</sup> is able to promote the  $\alpha$ -helical conformation at neutral pH. In contrast, the CD spectrum of the Cu<sup>2+</sup>-peptide complex does not show any indication of a helical conformation. The reasons for this behavior are proposed on the basis of ESR and UV/Vis data.

IT **214628-28-1P**

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation, spectroscopic characterization, and metal ion interaction of  $\alpha$ -helical peptide)

REFERENCE COUNT: 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 20 Aug 1997

ACCESSION NUMBER: 1997:531864 HCAPLUS

DOCUMENT NUMBER: 127:204167

TITLE: Intersite helper function of T cells specific for a protein epitope that is not recognized by antibodies

AUTHOR(S): Rosenberg, Jana S.; Atassi, M. Zouhair

CORPORATE SOURCE: Verna and Marrs McLean Department of Biochemistry, Baylor College of Medicine, Houston, TX, 77030, USA

SOURCE: Immunological Investigations (1997), 26(4), 473-489

CODEN: IMINEJ; ISSN: 0882-0139

PUBLISHER: Dekker

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Humoral responses to a protein require T-B cell communication for B cell activation by T cells. Previous studies from this laboratory have mapped the T and B cell recognition sites (epitopes) on sperm-whale myoglobin (Mb) and several other proteins. It was found that, five of six regions on Mb recognized by T cells are also recognized by B cells (i.e. antibodies). There is, however, one region (E6) residing within Mb residues 61-77, that is recognized only by T cells and to which no antibody (Ab) responses are detectable. To investigate the function of this exclusive T cell epitope, the authors established, from E6-primed BALB/c mice, an E6-specific T cell line (TE6) which comprised Th2-type cells. These T cells provided help in vitro to B cells from Mb-primed BALB/c mice and activated them to produce anti-Mb Abs of the IgM (58.2%) and IgG (41.8%) isotypes. The helper activity of TE6 cells was dependent on the concentration of the challenging Ag (intact Mb or peptide E6) in culture. Action of soluble factors released from E6-activated TE6 cells on BMb cells led to low production of anti-Mb Abs, suggesting that activation of the B cells was more dependent on their contact with T cells. Mapping of the epitope recognition of the anti-Mb Abs produced in vitro by BMb cells on activation by TE6 revealed that this activation was not general to all antigenic regions recognized by anti-Mb Abs in BALB/c mice. E6-specific T cells caused in vitro activation and differentiation of BMb cells into plasma cells that

secreted anti-Mb Abs directed, in decreasing order, against the following Mb regions: E4 (107-120) > E3 (87-100) > E1 (10-22). Little or no Ab responses could be detected against peptides E2 (50-62), E5 (141-153) and E6 (61-77). With B cells of peptide-primed BALB/c mice, TE6 cells activated strongly E4-, E3- or E1-, and only very slightly E2- or E6-, primed B cells to secrete Abs against the correlate peptide, but failed completely to activate E5-primed B cells. The results show that a protein T cell epitope, to which no Abs are detectable, plays an active role in B cell responses against other epitopes within the same protein.

IT 118024-72-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(T-cell-exclusive epitope role in B-cell response to immunodominant epitopes on same antigen)

L2 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 21 Mar 1997

ACCESSION NUMBER: 1997:188147 HCAPLUS

DOCUMENT NUMBER: 126:302757

TITLE: Folding propensities of peptide fragments of myoglobin

AUTHOR(S): Raymond, Martine T.; Merutka, Gene; Dyson, H. Jane; Wright, Peter E.

CORPORATE SOURCE: Dep. Molecular Biology & Skaggs Inst. Chem. Biology, Scripps Res. Inst., La Jolla, CA, 92037, USA

SOURCE: Protein Science (1997), 6(3), 706-716

CODEN: PRCIEI; ISSN: 0961-8368

PUBLISHER: Cambridge University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Myoglobin has been studied extensively as a paradigm for protein folding. As part of an ongoing study of potential folding initiation sites in myoglobin, we have synthesized a series of peptides covering the entire sequence of sperm whale myoglobin. We report here on the conformational preferences of a series of peptides that cover the region from the A helix to the FG turn. Structural propensities were determined using CD and NMR spectroscopy in aqueous solution, trifluoroethanol, and methanol. Peptides corresponding to helical regions in the native protein, namely the B, C, D, and E helices, populate the  $\alpha$  region of ( $\phi$ ,  $\psi$ ) space in water solution but show no measurable helix formation except in the presence of trifluoroethanol. The F-helix sequence has a much lower propensity to populate helical conformations even in TFE. Despite several attempts, we were not successful in synthesizing a peptide corresponding to the A-helix region that was soluble in water. A peptide termed the AB domain was constructed spanning the A- and B-helix sequences. The AB domain is not soluble in water, but shows extensive helix formation throughout the peptide when dissolved in methanol, with a break in the helix at a site close to the A-B helix junction in the intact folded myoglobin protein. With the exception of one local preference for a turn conformation stabilized by hydrophobic interactions, the peptides corresponding to turns in the folded protein do not measurably populate  $\beta$ -turn conformations

in water, and the addition of trifluoroethanol does not enhance the formation of either helical or turn structure. In contrast to the series of peptides described here, earlier studies of peptides from the GH region of myoglobin show a marked tendency to populate helical structures (H), nascent helical structures (G), or turn conformations (GH peptide) in water solution. This region, together with the A-helix and part of the B-helix, has been shown to participate in an early folding intermediate. The complete anal. of conformational properties of isolated myoglobin peptides supports the hypothesis that spontaneous structure formation in local regions of the polypeptide may play an important role in the initiation of protein folding.

IT 189134-95-0

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(folding propensities of peptide fragments of myoglobin)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 04 Sep 1993

ACCESSION NUMBER: 1993:490109 HCAPLUS

DOCUMENT NUMBER: 119:90109

TITLE: Novel thrombin-inhibiting protein from triatomid bug

INVENTOR(S): Friedrich, Thomas; Bialojan, Siegfried; Kroeger, Burkhard; Kuenast, Christoph

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Ger. Offen., 7 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4136513	A1	19930513	DE 1991-4136513	19911106
WO 9309232	A1	19930513	WO 1992-EP2450	19921027
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
EP 612349	A1	19940831	EP 1992-922434	19921027
EP 612349	B1	19970305		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
AT 149568	E	19970315	AT 1992-922434	19921027
ES 2097931	T3	19970416	ES 1992-922434	19921027
US 5523287	A	19960604	US 1994-211942	19940426

PRIORITY APPLN. INFO.:

DE 1991-4136513 19911106

WO 1992-EP2450 19921027

AB A thrombin-inhibiting protein was isolated from a homogenate of last-instar *Rhodnius prolixus* larvae by Q-Sepharose chromatog., affinity chromatog. on immobilized thrombin, mono-Q chromatog., and reversed-phase HPLC. The protein had pI 3.7-4.7, mol. weight 12,000, and the N-terminal amino acid sequence Glu-Gly-Gly-Glu-Pro-Cys-Ala-Cys-Pro-His-Ala-Leu-His-Arg-Val-Cys-Gly-Ser-Asp. It may be produced



09/972772

by recombinant DNA methodol. for use as an antithrombotic, in blood preservation, etc.

IT 149183-28-8

RL: BIOL (Biological study)

(thrombin-inhibiting protein amino-terminal fragment of Rhodnius prolixus)

L2 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 26 Jun 1993

ACCESSION NUMBER: 1993:255311 HCAPLUS

DOCUMENT NUMBER: 118:255311

TITLE: Synthesis and circular dichroism spectra of sperm whale myoglobin-(57-96)-tetracontapeptide

AUTHOR(S): Hashimoto, Chikao; Muramatsu, Ichiro

CORPORATE SOURCE: Sch. Med., Jikei Univ., Tokyo, 182, Japan

SOURCE: Bulletin of the Chemical Society of Japan

(1993), 66(1), 181-90

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A protected sperm whale myoglobin-(57-96)-tetracontapeptide was synthesized by successive condensations of Boc-(70-76)-OH (Boc = tert-butoxycarbonyl), Boc-(62-69)-OH, and Boc-(57-61)-OH fragments to partially protected ester H-(77-96)-OCH<sub>2</sub>Ph. After removal of the protecting groups, the crude product was purified with reversed-phase HPLC to yield sperm whale myoglobin-(57-96)-tetracontapeptide (I). The CD spectra showed that I was in a random conformation in 0.10 M phosphate buffer (pH 6.50) and in a 69%  $\alpha$ -helix conformation in 60% 2,2,2-trifluoroethanol-0.10 M phosphate buffer (pH 6.50).

IT 126301-55-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(deblocking and peptide coupling reactions of, in preparation of myoglobin fragment)

L2 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 10 Jan 1993

ACCESSION NUMBER: 1993:11732 HCAPLUS

DOCUMENT NUMBER: 118:11732

TITLE: Fusion polypeptides prodrugs cleavable by dipeptidylpeptidase IV

INVENTOR(S): Kubiak, Teresa M.; Sharma, Satish K.

PATENT ASSIGNEE(S): Upjohn Co., USA

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9210576	A1	19920625	WO 1991-US9152	19911212
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, SD, SU, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB,				

Searcher : Shears 571-272-2528

GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG

CA 2094512	AA	19920614	CA 1991-2094512	19911212
AU 9191165	A1	19920708	AU 1991-91165	19911212
AU 662508	B2	19950907		
EP 561971	A1	19930929	EP 1992-901817	19911212

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE

JP 06503473	T2	19940421	JP 1992-501996	19911212
HU 69963	A2	19950928	HU 1993-1705	19911212
NO 9302148	A	19930809	NO 1993-2148	19930611
RU 2114119	C1	19980627	RU 1993-45577	19930611

PRIORITY APPLN. INFO.: US 1990-626727 19901213  
WO 1991-US9152 19911212

OTHER SOURCE(S): MARPAT 118:11732

AB Nonnaturally occurring fusion polypeptides containing N-terminal extension peptide portions cleavable by dipeptidylpeptidase IV are disclosed which can be prepared recombinantly or by peptide synthesizer techniques. The fusion polypeptides are useful as prodrugs. Methods of affinity-purifying the desired active proteins are also disclosed. Bovine growth hormone-releasing factor (bGRF) analog [Leu27]bGRF(1-29)NH<sub>2</sub> (I) was generated from 3 N-terminally-extended analogs: Tyr-Ala-Tyr-Ala-I, Ile-Ala-I (II), and Tyr-Ala-I upon incubation with bovine plasma in vitro. Moreover, the time at which I released from the prodrug was present correlated well with the prodrug extension length. When Holstein steers were injected i.v. with II at 0.2 nmol/kg body weight, plasma growth hormone levels were elevated to levels comparable to those generated upon i.v. injection with the same dose of I. As II had only .apprx.5% inherent potency of I, I must have been released from the extended peptide in vivo.

IT 144505-38-4

RL: BIOL (Biological study)

(as dipeptidylpeptidase IV-cleavable extension peptide at amino-terminus of active core protein)

L2 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 23 Aug 1992

ACCESSION NUMBER: 1992:470320 HCAPLUS

DOCUMENT NUMBER: 117:70320

TITLE: Synthesis of sperm whale myoglobin-(77-96)-eicosapeptide and circular dichroism spectra of the related peptides

AUTHOR(S): Hashimoto, Chikao

CORPORATE SOURCE: Sch. Med., Jikei Univ., Chofu, 182, Japan

SOURCE: Bulletin of the Chemical Society of Japan (1992), 65(5), 1268-74

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Sperm whale myoglobin fragments (91-96) (I), (85-90) (II), (77-84) (III), (85-96) (IV), and (77-96) (V) peptides were prepared. Protected precursors of I, II, and IV partly changed into pyroglutamic acid derivs. during deprotection and purification by various forms of column chromatog. The CD spectra of free peptides I-V in 0.10M phosphate buffers at pH 4.00, 6.50, and 8.50 were not typical of the helical structure. However, the CD spectra of peptides II, IV, and V in 60% 2,2,2-trifluoroethanol-0.10M phosphate buffers at the same pHs

09/972772

showed profiles characteristic of a helical structure.

IT **126301-55-1**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(deblocking of, with hydrogen fluoride)

IT **126301-54-0**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(deblocking of, with methanesulfonic acid)

IT **142473-35-6P**  
RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, in deblocking of protected glutamic acid derivative  
with methanesulfonic acid)

IT **142473-27-6P 142473-29-8P**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP  
(Preparation)  
(preparation and conformation of, by CD)

L2 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
ED Entered STN: 12 May 1990  
ACCESSION NUMBER: 1990:179814 HCAPLUS  
DOCUMENT NUMBER: 112:179814  
TITLE: Synthesis of a protected sperm whale  
myoglobin-(77-96)-eicosapeptide and circular  
dichroism spectra of the related peptides  
AUTHOR(S): Hashimoto, Chikao; Muramatsu, Ichiro  
CORPORATE SOURCE: Sch. Med., Jikei Univ., Chofu, 182, Japan  
SOURCE: Bulletin of the Chemical Society of Japan  
(1989), 62(6), 1900-7  
CODEN: BCSJA8; ISSN: 0009-2673  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 112:179814

AB A protected sperm whale myoglobin-(77-96)-eicosapeptide (I) was  
synthesized by a solution method. The protected peptide I was purified  
by silica gel column chromatog. with BuOH-AcOH-H<sub>2</sub>O. The CD spectra  
of protected fragment peptides were measured in CF<sub>3</sub>CH<sub>2</sub>OH. A  
protected sperm whale myoglobin-(85-96)-dodecapeptide and I showed  
CD profiles characteristic of a helical structure.

IT **126301-55-1P**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP  
(Preparation)  
(preparation and conformation of, by CD)

IT **126301-54-0P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, peptide coupling of, with myoglobin octapeptide  
fragment, in conformation of, by CD)

L2 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN  
ED Entered STN: 31 Mar 1990  
ACCESSION NUMBER: 1990:116832 HCAPLUS  
DOCUMENT NUMBER: 112:116832  
TITLE: Antigen presentation by non-immune B-cell  
hybridoma clones: presentation of synthetic  
antigenic sites reveals clones that exhibit no  
specificity and clones that present only one  
epitope  
AUTHOR(S): Cohly, Hari H. P.; Morrison, Dennis R.; Atassi,

09/972772

CORPORATE SOURCE: M. Zouhair  
Johnson Space Cent., NASA, Houston, TX, 77058,  
USA  
SOURCE: Immunological Investigations (1989), 18(8),  
987-92  
CODEN: IMINEJ; ISSN: 0882-0139  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Recently, the authors reported the preparation and antigen-presenting properties of hybridoma B-cell clones obtained after fusing non-secreting, non-antigen presenting Balb/c 653-myeloma cells with non-immune SJL spleen cells. Here, specific and general presenter B cell clones were tested for their epitope presentation ability to SJL T-cells that were specific to lysozyme or myoglobin. B-cell clone A1G12, a general presenter which presented both lysozymes and myoglobin to their resp. T-cell lines, presented all 5 myoglobin epitopes while clone A1L16, a lysozyme-specific presenter, presented only 1 of the 3 epitopes of lysozyme. The latter reveals a hitherto unknown submol. specificity (to a given epitope within a protein) for antigen presenting cells at the clonal level. Therefore, the specificity of T-cell recognition does not only derive from the T-cell but may also be dependent on the epitope specificity of the antigen-presenting B-cell.

IT 88530-81-8

RL: PROC (Process)

(presentation of, to T-cells, by non-immune B-cells, specificity of)

L2 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 21 Jan 1989

ACCESSION NUMBER: 1989:21983 HCAPLUS

DOCUMENT NUMBER: 110:21983

TITLE: T cell response to myoglobin: a comparison of T cell clones in high-responder and low-responder mice

AUTHOR(S): Gorai, Itsuo; Aihara, Michiko; Bixler, Garvin S., Jr.; Atassi, M. Zouhair; Walden, Peter; Klein, Jan

CORPORATE SOURCE: Abt. Immunogenet., Max-Planck-Inst. Biol., Tuebingen, Fed. Rep. Ger.

SOURCE: European Journal of Immunology (1988), 18(9), 1329-35

CODEN: EJIMAF; ISSN: 0014-2980

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mice carrying the H-2b haplotype (e.g., inbred strains C57BL/6 and C57BL/10) are low responders to sperm whale myoglobin when tested in the T cell proliferation assay. Their response is improved by the removal of the Ly-2+ cells from the lymph node population, but it still remains significantly lower than that of cells from high-responder strains (e.g., DBA/2, H-2d). To determine whether T cells from the low and high-responder mice recognize the same or different epitopes on the immunizing antigen, sets of T cell clones from both strains were tested against peptides representing different regions of the myoglobin mol., as well as against myoglobins from species other than the sperm whale. Four types of T cell clones were

obtained from the DBA/2 mice: 3 types responded to the peptide 107-120 (9 clones altogether), and 1 type responded to the peptide 133-149 (4 clones altogether). The 3 types responding to the peptide 107-120 could be distinguished by their response to horse myoglobin or by the restriction of the response (Ad vs. Ed). Similarly, 5 types of T cell clones were obtained from the C57BL/6 mice: 2 types responded to the peptide 10-22 (1 type, but not the other, responded to horse myoglobin); 1 type responded to the peptide 133-149; and 2 types did not respond to any of the peptides used (1 type, but not the other, responded to dog myoglobin). All 5 types (13 clones altogether) were presumably Ab restricted. These results demonstrate the diversity of epitopes in single antigenic regions and show equivalent heterogeneity of T cell repertoires in high and low responder mice. Attempts to demonstrate specific T cell suppression in the low responder mice failed; only partial, nonspecific suppression was observed

IT 118024-72-9

RL: BIOL (Biological study)

(of myoglobin, T-lymphocyte immune response to, H-2 haplotype in, of mouse)

L2 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 28 Oct 1988

ACCESSION NUMBER: 1988:545522 HCAPLUS

DOCUMENT NUMBER: 109:145522

TITLE: Prediction of peptide retention times

AUTHOR(S): Sakamoto, Yasuhiro; Kawakami, Nami; Sasagawa, Tatsuru

CORPORATE SOURCE: Sci. Instrum. Div., Tosoh Co., Ayase, 252, Japan

SOURCE: Journal of Chromatography (1988), 442, 69-79

CODEN: JOCRAM; ISSN: 0021-9673

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new approach for predicting the retention times of peptides, either with isocratic or gradient elution is described. The isocratic capacity factors of peptides are correlated with their mol. wts. and with their hydrophobicities. Given the exptl. conditions, and the amino acid composition, it is possible to calculate the retention time of a peptide eluted by a gradient, for any slope of gradient, flow-rate, and column length.

IT 116685-54-2

RL: ANT (Analyte); ANST (Analytical study)

(chromatog. of, reversed-phase high-performance liquid, retention time of, prediction of)

L2 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 01 Nov 1985

ACCESSION NUMBER: 1985:539885 HCAPLUS

DOCUMENT NUMBER: 103:139885

TITLE: T cell recognition of myoglobin. Localization of the sites stimulating T cell proliferative responses by synthetic overlapping peptides encompassing the entire molecule

AUTHOR(S): Bixler, Garvin S., Jr.; Atassi, M. Zouhair

CORPORATE SOURCE: Verna and Marrs McLean Dep. Biochem., Baylor Coll. Med., Houston, TX, 77030, USA

09/972772

SOURCE: Journal of Immunogenetics (1984), 11(5-6),  
339-53

CODEN: JIMGAV; ISSN: 0305-1811

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A comprehensive strategy for the systematic localization of all continuous antigenic sites within a protein was previously introduced. The strategy consists of studying the immunochem. activity of a series of consecutive synthetic peptides that encompass the entire protein chain and that are uniform in size and in overlap at their N- and C-terminals with neighboring peptides. By application of this strategy to sperm whale myoglobin, the authors were able to delineate the continuous sites of T cell recognition of myoglobin in 3 high responder mouse strains. Thirteen 17-residue peptides that encompass the entire myoglobin chain and overlap by 5 residues at both ends were synthesized, purified and characterized. The peptides were examined in vitro for their ability to stimulate lymph node cells from myoglobin-primed DBA/2 (H-2d), BALB/c (H-2d) and SJL (H-2s) mice as well as long-term cultures of myoglobin-specific T cells. Several regions of the mol. (T sites) stimulated myoglobin-primed lymph node cells and myoglobin-specific longterm T cell cultures. This strategy has enabled the localization of the full profile of dominant sites of T cell recognition in myoglobin for these mouse strains. Of these T sites, one region, residues 107-125, was clearly immunodominant in these strains and coincided with the antigenic (i.e. antibody binding) site 4 of myoglobin. Also, other regions stimulated T cells and appeared to coincide with previously known antigenic sites. It is noteworthy that, in addition to sites recognized by both T and B cells, the myoglobin protein has other sites which are recognized exclusively by T cells and to which no detectable antibody response is directed.

IT 88530-81-8

RL: PROC (Process)

(T-lymphocyte recognition of, of myoglobin)

IT 98474-13-6P

RL: PREP (Preparation)

(preparation and T-lymphocyte recognition of, of myoglobin)

L2 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1984:49896 HCAPLUS

DOCUMENT NUMBER: 100:49896

TITLE: Preparation of T-lymphocyte lines and clones with specificities to preselected protein sites by in vitro passage with free synthetic peptides: demonstration with myoglobin sites

AUTHOR(S): Yoshioka, Mitsuaki; Bixler, Garvin S., Jr.; Atassi, M. Zouhair

CORPORATE SOURCE: Dep. Immunol., Mayo Clin., Rochester, MN, 55905, USA

SOURCE: Molecular Immunology (1983), 20(10), 1133-7

CODEN: MOIMD5; ISSN: 0161-5890

DOCUMENT TYPE: Journal

LANGUAGE: English

AB It was previously demonstrated that antibodies to preselected

regions of a protein can be obtained by immunization with free small synthetic peptides (6-7 residues) without conjugation to a carrier. Here, the use of free synthetic peptides representing myoglobin (Mb) antigenic sites to prepare T-cell lines and clones of preselected specificities is reported. Lymph node cells from mice primed in vivo with sperm whale Mb were periodically passaged in vitro with synthetic peptide. After several passages, the peptide-driven long term T-cell cultures responded to the intact protein and exclusively to the peptide that was used to drive the cells. From these cultures, T-cell clones were prepared that responded only to the driving peptide and to the whole protein. The ability to prepare T-cell lines and T-cell clones with preselected submol. specificities to a protein by driving cultures with desired synthetic peptides affords an important and simple tool for basic immunol. investigations and for clin. applications.

IT 88530-81-8P

RL: PREP (Preparation)

(preparation of and T-lymphocyte cell lines and clones specific for, as myoglobin peptide analogs)

L2 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1979:87867 HCAPLUS

DOCUMENT NUMBER: 90:87867

TITLE: Synthesis of protected sequences 81-88, 89-94, 83-94 and 81-94 of the F-region of myoglobin

AUTHOR(S): Eckstein, Heiner; Bayer, Ernst

CORPORATE SOURCE: Inst. Org. Chem., Univ. Tuebingen, Tuebingen, Fed. Rep. Ger.

SOURCE: Justus Liebig's Annalen der Chemie (1978), (10), 1607-16

CODEN: JLACBF; ISSN: 0075-4617

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The myoglobin 89-94 sequence, H-Leu-Ala-Gln-Ser(CMe3)-His-Ala-OMe (I), was prepared by coupling Z-Leu-Ala-OH (Z = PhCH2O2C) to H-Gln-Ser(CMe3)-His-Ala-OMe by the mixed anhydride method and Z-deblocking the resulting hexapeptide, whereas the protected 83-88 myoglobin sequence, Z-Glu(OCMe3)-Ala-Glu(OCMe3)-Leu-Lys(BOC)-Pro-NHNH2 (II, BOC = CO2CMe3), was prepared by coupling Z-Glu(OCMe3)-Ala-Glu(OCMe3)-NHNH2 to H-Leu-Lys(BOC)-Pro-OMe by the azide method and treating the resulting hexapeptide Me ester with NH2NH2. I was coupled to II by the azide method to give the Z-protected 80-94 sequence which was Z-deblocked to give H-Glu(OCMe3)-Ala-Glu(OCMe3)-Leu-Lys(BOC)-Pro-Leu-Ala-Glu-Ser(CMe3)-His-Ala-OMe (III). The attempted coupling of Z-His-His-NHNH2 (IV) (myoglobin sequence 81-82) with III by the azide method to give the 81-94 sequence (V) was not successful. The 81-88 sequence, Z-His-His-Glu(OCMe3)-Ala-Glu(OCMe3)-Leu-Lys(BOC)-Pro-NHNH2 (VI), was prepared by coupling IV to H-Glu(OCMe3)-Ala-Glu(OCMe3)-Leu-Lys(BOC)-Pro-OMe and treating the resulting peptide Me ester with NH2NH2. The attempted azide coupling of VI with I to give V also failed.

IT 69323-25-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(attempted preparation of, failure of attempted azide fragment condensation in relation to)

09/972772

IT 69323-24-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
RACT (Reactant or reagent)  
(preparation and attempted peptide coupling of, with dipeptide azide)  
IT 69323-19-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and partial deblocking of)

E1 THROUGH E29 ASSIGNED

FILE 'REGISTRY' ENTERED AT 09:59:15 ON 05 APR 2004  
L3 29 SEA FILE=REGISTRY ABB=ON PLU=ON (126301-55-1/BI OR  
88530-81-8/BI OR 118024-72-9/BI OR 126301-54-0/BI OR  
214628-28-1/BI OR 478412-67-8/BI OR 478412-68-9/BI OR  
116685-54-2/BI OR 142473-27-6/BI OR 142473-29-8/BI OR  
142473-35-6/BI OR 144505-38-4/BI OR 149183-28-8/BI OR  
189134-95-0/BI OR 398148-67-9/BI OR 398148-70-4/BI OR  
422320-93-2/BI OR 437767-29-8/BI OR 495402-07-8/BI OR  
503535-18-0/BI OR 518998-85-1/BI OR 557064-43-4/BI OR  
557064-44-5/BI OR 557064-45-6/BI OR 574743-62-7/BI OR  
69323-19-9/BI OR 69323-24-6/BI OR 69323-25-7/BI OR  
98474-13-6/BI)

L4 29 L1 AND L3

L4 ANSWER 1 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 574743-62-7 REGISTRY  
CN L-Tryptophan, L-prolyl-L-alanyl-L-alanyl-L-leucyl-L-histidyl-L-  
histidyl-L-alanyl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-histidyl-L-  
histidyl-L-leucyl- (9CI) (CA INDEX NAME)  
SQL 15

SEQ 1 PAALHHALAL AHHLW

=====

HITS AT: 1-7

REFERENCE 1: 139:163463

L4 ANSWER 2 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 557064-45-6 REGISTRY  
CN L-Lysine, glycyl-L-histidyl-L-histidyl-L- $\alpha$ -glutamyl-L-alanyl-L-  
 $\alpha$ -glutamyl-L-leucyl-L-lysyl-L-prolyl-L-leucyl-L-alanyl-L-  
glutaminyl-L-seryl-L-histidyl-L-alanyl-L-threonyl- (9CI) (CA INDEX  
NAME)  
SQL 17

SEQ 1 GHHEAELKPL AQSHATK

== =====

HITS AT: 9-15

REFERENCE 1: 139:97654

L4 ANSWER 3 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 557064-44-5 REGISTRY  
CN L-Lysine, L-lysylglycyl-L-histidyl-L-histidyl-L- $\alpha$ -glutamyl-L-  
alanyl-L- $\alpha$ -glutamyl-L-leucyl-L-lysyl-L-prolyl-L-leucyl-L-



09/972772

alanyl-L-glutaminy-L-seryl-L-histidyl-L-alanyl-L-threonyl- (9CI)  
(CA INDEX NAME)  
SQL 18

SEQ 1 KGHHEAELKP LAQSHATK  
= =====  
HITS AT: 10-16

REFERENCE 1: 139:97654

L4 ANSWER 4 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 557064-43-4 REGISTRY  
CN L-Lysine, L-lysyl-L-lysylglycyl-L-histidyl-L-histidyl-L- $\alpha$ -  
glutamyl-L-alanyl-L- $\alpha$ -glutamyl-L-leucyl-L-lysyl-L-prolyl-L-  
leucyl-L-alanyl-L-glutaminy-L-seryl-L-histidyl-L-alanyl-L-threonyl-  
(9CI) (CA INDEX NAME)  
SQL 19

SEQ 1 KKGHHEAELK PLAQSHATK  
=====

HITS AT: 11-17

REFERENCE 1: 139:97654

L4 ANSWER 5 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 518998-85-1 REGISTRY  
CN L-Tyrosine, L-seryl-L-phenylalanyl-L-lysyl-L-prolyl-L-prolyl-L-  
alanyl-L-asparaginy-L-histidyl-L-histidyl-L-alanyl-L-tryptophyl-  
(9CI) (CA INDEX NAME)  
SQL 12

SEQ 1 SFKPPANHHA WY  
=====

HITS AT: 4-10

REFERENCE 1: 138:348758

L4 ANSWER 6 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 503535-18-0 REGISTRY  
CN L-Arginine, L-alanylglycyl-L- $\alpha$ -glutamyl-L-prolyl-L-histidyl-L-  
alanyl-L- $\alpha$ -glutamyl-L-valyl-L-histidyl-L-alanyl-L-leucyl-  
(9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 82: PN: WO03025006 FIGURE: 8 unclaimed sequence  
SQL 12

SEQ 1 AGEPHAHVHA LR  
=====

HITS AT: 4-10

REFERENCE 1: 138:267686

L4 ANSWER 7 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 495402-07-8 REGISTRY  
CN L-Alanine, L-valyl-L-valyl-L-seryl-L-valyl-L-valyl-L-prolylglycyl-L-  
alanyl-L-isoleucyl-L-seryl-L-histidyl- (9CI) (CA INDEX NAME)

09/972772

SQL 12

SEQ 1 VVSVPGAIS HA

=====

HITS AT: 6-12

REFERENCE 1: 138:150397

L4 ANSWER 8 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 478412-68-9 REGISTRY

CN L-Alanine, L-prolyl-3-cyclohexyl-L-alanyl-L-alanylglycyl-S-methyl-L-cysteinyl-L-histidyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 15: PN: US20020193298 SEQID: 17 claimed protein

SQL 7

SEQ 1 PAAGCHA

=====

HITS AT: 1-7

REFERENCE 1: 139:7179

REFERENCE 2: 138:33374

L4 ANSWER 9 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 478412-67-8 REGISTRY

CN L-Alanine, L-prolyl-3-cyclohexyl-L-alanyl-L-alanyl-(2S)-2-aminobutanoyl-S-methyl-L-cysteinyl-L-histidyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 14: PN: US20020193298 SEQID: 16 claimed protein

SQL 7

SEQ 1 PAAXCHA

=====

HITS AT: 1-7

REFERENCE 1: 139:7179

REFERENCE 2: 138:33374

L4 ANSWER 10 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 437767-29-8 REGISTRY

CN L-Alanine, L-histidyl-L-leucyl-L-phenylalanyl-L-seryl-L-seryl-L-prolyl-L-arginyl-L-alanyl-L-isoleucyl-L- $\alpha$ -glutamyl-L-histidyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 8: PN: WO0248349 SEQID: 9 unclaimed sequence

SQL 12

SEQ 1 HLFSSPRAIE HA

=====

HITS AT: 6-12

REFERENCE 1: 137:43263

Searcher : Shears 571-272-2528

09/972772

```
L4 ANSWER 11 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN
RN 422320-93-2 REGISTRY
CN L-Leucine, L-leucyl-L-leucyl-L-glutaminyL-L-prolyl-L-prolyl-L-alanyl-
L-arginylglycyl-L-histidyl-L-alanyl-L-histidyl-L-α-
aspartylglycyl-L-glutaminyL-L-alanyl-L-leucyl-L-seryl-L-threonyl-L-
α-aspartyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 22: PN: WO0236771 PAGE: 183 claimed protein
SQL 20
```

SEQ 1 LLQPPARGHA HDGQALSTD L

HITS AT: 4-10

REFERENCE 1: 136:364964

```
L4 ANSWER 12 OF 29  REGISTRY  COPYRIGHT 2004 ACS on STN
RN 398148-70-4  REGISTRY
CN Rhodium(1+), [μ-[N-[4-(4'-methyl[2,2'-bipyridin]-4-yl-
κN1,κN1')-1-oxobutyl]-L-α-aspartyl-L-prolyl-L-
α-aspartyl-L-alanyl-L-leucyl-L-α-glutamyl-L-histidyl-
κN1-L-alanyl-L-alanyl-L-lysyl-L-histidyl-κN1-L-α-
glutamyl-L-alanyl-L-alanyl-L-alanyl-L-lysynamidato(4-)]bis[9,10-
phenanthrenediaminato(2-)-κN,κN'] (zinc)-, conjugate
tetraacid (9CI) (CA INDEX NAME)
CI CCS
SQL 16
```

SEO 1 DPDALEHAAK HEAAAK

HITS AT: 2-8

REFERENCE 1: 136:163197

```
L4 ANSWER 13 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN
RN 398148-67-9 REGISTRY
CN Rhodium, [ $\mu$ -[N-[4-(4'-methyl[2,2'-bipyridin]-4-yl-
  κN1,κN1')-1-oxobutyl]-L-α-aspartyl-L-prolyl-L-
  α-aspartyl-L-alanyl-L-leucyl-L-α-glutamyl-L-histidyl-
  κN1-L-alanyl-L-alanyl-L-lysyl-L-histidyl-κN1-L-α-
  glutamyl-L-alanyl-L-α-glutamyl-L-alanyl-L-lysynamidato(5-
  )]]bis[9,10-phenanthrenediaminato(2-)-κN,κN'] (zinc)-,
  conjugate pentaacid (9CI) (CA INDEX NAME)
CI CCS
SQL 16
```

SEO 1 DPDALEHAAK HEAEAK

HITS AT: 2-8

REFERENCE 1: 136:163197

L4 ANSWER 14 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN **214628-28-1** REGISTRY  
CN Glycine, L-prolyl-L- $\alpha$ -aspartyl-L-alanyl-L- $\alpha$ -aspartyl-L-  
alanyl-L-histidyl-L-alanyl-L-histidyl-L-alanyl-L-histidyl-L-alanyl-L-

09/972772

alanyl-L-alanyl-L-histidyl- (9CI) (CA INDEX NAME)  
SQL 15

SEQ 1 PDADAHAAH AAAHG

=====

HITS AT: 1-7

REFERENCE 1: 137:321810

REFERENCE 2: 129:302879

L4 ANSWER 15 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 189134-95-0 REGISTRY

CN L-Alaninamide, N-acetyl-L- $\alpha$ -glutamyl-L-leucyl-L-lysyl-L-prolyl-L-leucyl-L-alanyl-L-glutamyl-L-seryl-L-histidyl- (9CI) (CA INDEX NAME)

SQL 10

SEQ 1 ELKPLAQSHA

=====

HITS AT: 4-10

REFERENCE 1: 126:302757

L4 ANSWER 16 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 149183-28-8 REGISTRY

CN L-Aspartic acid, L- $\alpha$ -glutamylglycylglycyl-L- $\alpha$ -glutamyl-L-prolyl-L-cysteinyl-L-alanyl-L-cysteinyl-L-prolyl-L-histidyl-L-alanyl-L-leucyl-L-histidyl-L-arginyl-L-valyl-L-cysteinylglycyl-L-seryl- (9CI) (CA INDEX NAME)

SQL 19

SEQ 1 EGGEPCACPH ALHRVCGSD

=====

HITS AT: 5-11

REFERENCE 1: 119:90109

L4 ANSWER 17 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 144505-38-4 REGISTRY

CN L-Alanine, N-[N-[N-[N-[N-[N-[N-[1-(N-L-methionyl-L-alanyl)-L-prolyl]-L-histidyl]-L-alanyl]-L-histidyl]-L-alanyl]-L-histidyl]-L-alanyl]-L-histidyl]- (9CI) (CA INDEX NAME)

SQL 11

SEQ 1 MAPHAHAHAH A

=====

HITS AT: 3-9

REFERENCE 1: 118:11732

L4 ANSWER 18 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 142473-35-6 REGISTRY

CN L-Lysine, N2-[N-[N-[N-[N-[N2-[N-[N-[1-[N2-[N-(5-oxo-L-prolyl)-L-leucyl]-L-lysyl]-L-prolyl]-L-leucyl]-L-alanyl]-L-glutamyl]-L-seryl]-L-histidyl]-L-alanyl]-L-threonyl]-, trifluoroacetate (salt)

(9CI) (CA INDEX NAME)  
SQL 12

SEQ 1 XLKPLAQSHA TK  
=====

HITS AT: 4-10

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 117:70320

L4 ANSWER 19 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 142473-29-8 REGISTRY  
CN L-Lysine, L-lysyl-L-lysyl-L-lysylglycyl-L-histidyl-L-histidyl-L-  
α-glutamyl-L-alanyl-L-α-glutamyl-L-leucyl-L-lysyl-L-  
prolyl-L-leucyl-L-alanyl-L-glutaminyL-L-seryl-L-histidyl-L-alanyl-L-  
threonyl-, hexaacetate (salt) (9CI) (CA INDEX NAME)

SQL 20

SEQ 1 KKKGHHEAEL KPLAQSHATK  
=====

HITS AT: 12-18

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 117:70320

L4 ANSWER 20 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 142473-27-6 REGISTRY  
CN L-Lysine, N2-[N-[N-[N-[N-[N2-[N-[N-[1-[N2-(N-L-α-glutamyl-L-  
leucyl)-L-lysyl]-L-prolyl]-L-leucyl]-L-alanyl]-L-glutaminyL]-L-  
seryl]-L-histidyl]-L-alanyl]-L-threonyl-, octakis(trifluoroacetate)  
(salt) (9CI) (CA INDEX NAME)

SQL 12

SEQ 1 ELKPLAQSHA TK  
=====

HITS AT: 4-10

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 117:70320

L4 ANSWER 21 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 126301-55-1 REGISTRY  
CN L-Lysine, N2-[(1,1-dimethylethoxy)carbonyl]-N6-  
[(phenylmethoxy)carbonyl]-L-lysyl-N6-[(phenylmethoxy)carbonyl]-L-  
lysyl-N6-[(phenylmethoxy)carbonyl]-L-lysylglycyl-L-histidyl-L-  
histidyl-L-α-glutamyl-L-alanyl-L-α-glutamyl-L-leucyl-N6-  
[(phenylmethoxy)carbonyl]-L-lysyl-L-prolyl-L-leucyl-L-alanyl-L-  
glutaminyL-O-(phenylmethyl)-L-seryl-L-histidyl-L-alanyl-L-threonyl-  
N6-[(phenylmethoxy)carbonyl]-, tris(phenylmethyl) ester (9CI) (CA  
INDEX NAME)

SQL 20

SEQ 1 KKKGHHEAEL KPLAQSHATK

HITS AT: 12-18

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 118:255311

REFERENCE 2: 117:70320

REFERENCE 3: 112:179814

L4 ANSWER 22 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 126301-54-0 REGISTRY

CN L-Lysine, N2-[N-[N-[N-[N2-[N-[N-[1-[N2-[N-[N-[(1,1-dimethylethoxy) carbonyl]-L- $\alpha$ -glutamyl]-L-leucyl]-N6-[(phenylmethoxy) carbonyl]-L-lysyl]-L-prolyl]-L-leucyl]-L-alanyl]-L-glutaminy]-O-(phenylmethyl)-L-seryl]-L-histidyl]-L-alanyl]-L-threonyl]-N6-[(phenylmethoxy) carbonyl]-, bis(phenylmethyl) ester (9CI) (CA INDEX NAME)

SQL 12

SEQ 1 ELKPLAQSHA TK

HITS AT: 4-10

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 117:70320

REFERENCE 2: 112:179814

L4 ANSWER 23 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 118024-72-9 REGISTRY

CN L-Proline, L-lysyl-L-prolyl-L-leucyl-L-alanyl-L-glutaminy-L-seryl-L-histidyl-L-alanyl-L-threonyl-L-lysyl-L-histidyl-L-lysyl-L-isoleucyl- (9CI) (CA INDEX NAME)

SQL 14

SEQ 1 KPLAQSHATK HKIP

HITS AT: 2-8

REFERENCE 1: 127:204167

REFERENCE 2: 110:21983

L4 ANSWER 24 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 116685-54-2 REGISTRY

CN L-Lysine, glycyl-L-histidyl-L-histidyl-L- $\alpha$ -glutamyl-L-alanyl-L- $\alpha$ -glutamyl-L-leucyl-L-lysyl-L-prolyl-L-leucyl-L-alanyl-L- $\alpha$ -glutamyl-L-seryl-L-histidyl-L-alanyl-L-threonyl- (9CI) (CA INDEX NAME)

SQL 17

SEQ 1 GHHEAELKPL AESHATK

09/972772

HITS AT: 9-15

REFERENCE 1: 109:145522

L4 ANSWER 25 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 98474-13-6 REGISTRY  
CN L-Isoleucine, L- $\alpha$ -glutamyl-L-leucyl-L-lysyl-L-prolyl-L-leucyl-  
L-alanyl-L-glutaminyl-L-seryl-L-histidyl-L-alanyl-L-threonyl-L-lysyl-  
L-histidyl-L-lysyl-L-isoleucyl-L-prolyl- (9CI) (CA INDEX NAME)  
SQL 17

SEQ 1 ELKPLAQSHA TKHKIPI  
=====

HITS AT: 4-10

REFERENCE 1: 103:139885

L4 ANSWER 26 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 88530-81-8 REGISTRY  
CN L-Proline, L-lysyl-L-prolyl-L-leucyl-L-alanyl-L- $\alpha$ -glutamyl-L-  
seryl-L-histidyl-L-alanyl-L-threonyl-L-lysyl-L-histidyl-L-lysyl-L-  
isoleucyl- (9CI) (CA INDEX NAME)  
SQL 14

SEQ 1 KPLAESHATK HKIP  
=====

HITS AT: 2-8

REFERENCE 1: 112:116832

REFERENCE 2: 103:139885

REFERENCE 3: 100:49896

L4 ANSWER 27 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 69323-25-7 REGISTRY  
CN L-Alanine, N-[(phenylmethoxy)carbonyl]-L-histidyl-L-histidyl-L-  
 $\alpha$ -glutamyl-L-alanyl-L- $\alpha$ -glutamyl-L-leucyl-N6-[(1,1-  
dimethylethoxy)carbonyl]-L-lysyl-L-prolyl-L-leucyl-L-alanyl-L-  
glutaminyl-O-(1,1-dimethylethyl)-L-seryl-L-histidyl-,  
3,5-bis(1,1-dimethylethyl) 14-methyl ester (9CI) (CA INDEX NAME)  
SQL 14

SEQ 1 HHEAELKPLA QSHA  
====

HITS AT: 8-14

REFERENCE 1: 90:87867

L4 ANSWER 28 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 69323-24-6 REGISTRY  
CN L-Alanine, N-[N-[N-[N2-[N-[N-[1-[N6-[(1,1-dimethylethoxy)carbonyl]-  
N2-[N-[N-(N-L- $\alpha$ -glutamyl-L-alanyl)-L- $\alpha$ -glutamyl]-L-  
leucyl]-L-lysyl]-L-prolyl]-L-leucyl]-L-alanyl]-L-glutaminyl]-O-(1,1-  
dimethylethyl)-L-seryl]-L-histidyl]-, 5,5'-bis(1,1-dimethylethyl)  
1-methyl ester (9CI) (CA INDEX NAME)

Searcher : Shears 571-272-2528

09/972772

SQL 12

SEQ 1 EAELKPLAQS HA

=====

HITS AT: 6-12

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 90:87867

L4 ANSWER 29 OF 29 REGISTRY COPYRIGHT 2004 ACS on STN

RN 69323-19-9 REGISTRY

CN L-Alanine, N-[N-[N-[N2-[N-[N-[1-[N2-[N-[N-[N-[N-  
[(phenylmethoxy) carbonyl]-L- $\alpha$ -glutamyl]-L-alanyl]-L- $\alpha$ -  
glutamyl]-L-leucyl]-L-lysyl]-L-prolyl]-L-leucyl]-L-alanyl]-L-  
glutamyl]-O-(1,1-dimethylethyl)-L-seryl]-L-histidyl]-,  
5,5'-bis(1,1-dimethylethyl) 1-methyl ester (9CI) (CA INDEX NAME)

SQL 12

SEQ 1 EAELKPLAQS HA

=====

HITS AT: 6-12

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 90:87867

FILE 'HOME' ENTERED AT 09:59:42 ON 05 APR 2004



GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2004, 09:01:27 ; Search time 39 Seconds  
(without alignments)  
56.631 Million cell updates/sec

Title: US-09-972-772A-16  
Perfect score: 26  
Sequence: 1 PXAXXHA 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 7668

Minimum DB seq length: 0  
Maximum DB seq length: 20

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 1000 summaries

Database : SPTREMBL\_25:\*  
1: sp\_archaea:\*  
2: sp\_bacteria:\*  
3: sp\_fungi:\*  
4: sp\_human:\*  
5: sp\_invertebrate:\*  
6: sp\_mammal:\*  
7: sp\_mhc:\*  
8: sp\_organelle:\*  
9: sp\_phage:\*  
10: sp\_plant:\*  
11: sp\_rodent:\*  
12: sp\_virus:\*  
13: sp\_vertebrate:\*  
14: sp\_unclassified:\*  
15: sp\_rvirus:\*  
16: sp\_bacteriap:\*  
17: sp\_archeap:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	%	Query				
No.	Score	Match	Length	DB	ID	Description
-----						

1	17	65.4	10	11	Q91WZ3	Q91wz3 rattus sp.
2	17	65.4	14	4	Q93057	Q93057 homo sapien
3	17	65.4	14	11	P70319	P70319 mus musculu
4	16	61.5	15	2	Q9R541	Q9r541 mycobacteri
5	16	61.5	15	5	Q9TWT4	Q9tw4 lumbricus t
6	16	61.5	19	12	O90628	O90628 simian herp
7	16	61.5	19	12	O90622	O90622 simian herp
8	16	61.5	19	12	O90635	O90635 simian herp
9	15	57.7	20	10	Q9S934	Q9s934 petunia hyb
10	14	53.8	10	4	Q8NER0	Q8ner0 homo sapien
11	14	53.8	15	6	Q9TRL0	Q9trl0 canis famil
12	14	53.8	16	10	Q8W1B4	Q8w1b4 oryza sativ
13	14	53.8	16	11	Q9QZY3	Q9qzy3 mus musculu
14	14	53.8	20	4	O95108	O95108 homo sapien
15	13	50.0	14	2	P71199	P71199 escherichia
16	13	50.0	14	2	O85527	O85527 chlamydia t
17	13	50.0	15	6	Q9TRL3	Q9trl3 ovis aries
18	13	50.0	15	8	Q95771	Q95771 ctenosaura
19	13	50.0	15	8	Q95952	Q95952 sauromalus
20	13	50.0	15	8	Q95879	Q95879 phrynosoma
21	13	50.0	15	8	Q37016	Q37016 nicotiana a
22	13	50.0	16	6	Q8WMZ0	Q8wmz0 canis famil
23	13	50.0	16	8	Q9T2I6	Q9t2i6 nicotiana s
24	13	50.0	16	8	Q36789	Q36789 solanum nig
25	13	50.0	19	8	Q36925	Q36925 nicotiana v
26	13	50.0	19	15	Q90RE9	Q90re9 human immun
27	13	50.0	19	15	Q905I4	Q905i4 human immun
28	13	50.0	20	4	O75318	O75318 homo sapien
29	13	50.0	20	5	Q9TWR0	Q9twr0 blattella g
30	13	50.0	20	8	Q9T2I9	Q9t2i9 nicotiana s
31	13	50.0	20	8	Q36584	Q36584 nicotiana g
32	13	50.0	20	8	Q9T2I8	Q9t2i8 nicotiana s
33	13	50.0	20	13	Q9PSI5	Q9psi5 oncorhynchu
34	13	50.0	20	13	Q9PSI4	Q9psi4 oncorhynchu
35	12	46.2	7	2	P72081	P72081 nocardia la
36	12	46.2	8	5	Q8MUN6	Q8mun6 heliconius
37	12	46.2	8	5	Q86BS9	Q86bs9 strongyloce
38	12	46.2	9	2	Q47410	Q47410 escherichia
39	12	46.2	9	4	Q14277	Q14277 homo sapien
40	12	46.2	9	8	P92072	P92072 euhadra her
41	12	46.2	10	5	Q8MUP1	Q8mup1 heliconius
42	12	46.2	10	5	Q8MUN7	Q8mun7 heliconius
43	12	46.2	10	5	P82223	P82223 bombyx mori
44	12	46.2	10	5	P82224	P82224 bombyx mori
45	12	46.2	10	6	Q9TS42	Q9ts42 sus scrofa
46	12	46.2	11	2	Q8KHL0	Q8khl0 streptococc
47	12	46.2	11	2	Q8KRA1	Q8kral streptococc
48	12	46.2	11	5	Q8MM58	Q8mm58 heliconius
49	12	46.2	11	6	Q9BDC8	Q9bdc8 pongo pygma
50	12	46.2	11	6	Q9XSP7	Q9xsp7 pygathrix n
51	12	46.2	11	6	Q9XSP2	Q9xsp2 hylobates s
52	12	46.2	11	6	Q9BDQ9	Q9bdq9 gorilla gor
53	12	46.2	11	6	Q9XSP5	Q9xsp5 pan troglod
54	12	46.2	11	6	Q9BDD0	Q9bdd0 pan troglod
55	12	46.2	11	6	Q9XSP8	Q9xsp8 presbytis j
56	12	46.2	11	6	Q9XSP6	Q9xsp6 pongo pygma
57	12	46.2	11	6	Q9BDC9	Q9bdc9 pan paniscu

58 12 46.2 11 6 Q9XSQ4

Q9xsq4 gorilla gor

# ALIGNMENTS

## RESULT 1

Q91WZ3

ID Q91WZ3 PRELIMINARY; PRT; 10 AA.  
AC Q91WZ3;  
DT 01-DEC-2001 (TrEMBLrel. 19, Created)  
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)  
DE Luteinizing hormone/chorionic gonadotropin receptor homolog  
DE (Fragment).  
OS Rattus sp.  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
OX NCBI\_TaxID=10118;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Ovary;  
RX MEDLINE=96147985; PubMed=8571710;  
RA Shen Q.X., Liu H.H., Chen W.Y., Bahl O.P.;  
RT "[Cloning and overexpression of rat ovary LH/hCG receptor cDNA in  
RT insect cells].";  
RL Shih Yen Sheng Wu Hsueh Pao 28:283-290(1995).  
DR EMBL; S80660; AAB50710.1; -.  
DR GO; GO:0004872; F:receptor activity; IEA.  
DR GO; GO:0005213; F:structural constituent of chorion (sensu In. . .; IEA.  
KW Chorion; Receptor.  
FT NON\_TER 1 1  
SQ SEQUENCE 10 AA; 1129 MW; 09A5F22DC4177760 CRC64;

Query Match 65.4%; Score 17; DB 11; Length 10;  
Best Local Similarity 50.0%; Pred. No. 3.7e+02;  
Matches 3; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 PXAXXH 6  
| | |  
Db 5 PRALTH 10

Search completed: April 5, 2004, 09:05:22  
Job time : 62 secs

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: April 5, 2004, 08:58:12 ; Search time 11 Seconds  
(without alignments)  
33.136 Million cell updates/sec

Title: US-09-972-772A-16  
Perfect score: 26  
Sequence: 1 PXAXXHA 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 1238

Minimum DB seq length: 0  
Maximum DB seq length: 20

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 1000 summaries

Database : SwissProt\_42:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query		DB	ID	Description
		Match	Length			
1	16	61.5	20	1	RT16_BOVIN	P82915 bos taurus
2	14	53.8	20	1	DER6_DERPT	P49277 dermatophag
3	14	53.8	20	1	HGL1_FASHE	P80527 fasciola he
4	14	53.8	20	1	PL5_LUPLU	P83367 lupinus lut
5	13	50.0	13	1	BLAC_STRGR	P81173 streptomyce
6	13	50.0	13	1	CXA2_CONGE	P01520 conus geogr
7	13	50.0	15	1	CXA1_CONGE	P01519 conus geogr
8	13	50.0	19	1	COXR_THUOB	P80984 thunnus obe
9	13	50.0	20	1	RECX_AZOVI	P37863 azotobacter
10	12	46.2	8	1	LCK4_LEUMA	P21143 leucophaea
11	12	46.2	9	1	XYLA_STRSQ	P19149 streptomyce
12	12	46.2	10	1	COXA_ONCMY	P80328 oncorhynchu
13	12	46.2	10	1	GON2_CHEPR	P80678 chelyosoma
14	12	46.2	10	1	TKL4_LOCFI	P30250 locusta mig
15	12	46.2	10	1	TRP8_LEUMA	P81740 leucophaea
16	12	46.2	12	1	RS19_CLYEP	Q46490 clover yell
17	12	46.2	12	1	RS19_ELYEP	Q47881 elm yellows

18	12	46.2	14	1	ADFA_TENMO	P82965	tenebrio mo
19	12	46.2	14	1	BGAT_MOUSE	P38649	m histo-blo
20	12	46.2	14	1	RS19_CLOPP	Q46228	clover prol
21	12	46.2	14	1	RS19_LOWBP	Q48878	loofah witc
22	12	46.2	15	1	SODP_PINPS	P81082	pinus pinas
23	12	46.2	19	1	PTHP_STRSA	P24365	streptococc
24	12	46.2	20	1	ALAT_PIG	P13191	sus scrofa
25	12	46.2	20	1	ATP4_SPIOL	P80085	spinacia ol
26	12	46.2	20	1	CRP_MUSCA	P19094	mustelus ca
27	12	46.2	20	1	ELAS_GADMO	P32197	gadus morhu
28	12	46.2	20	1	FRE3_LITIN	P56249	litoria inf
29	12	46.2	20	1	LPP2_HUMAN	P56642	homo sapien
30	11	42.3	9	1	LITR_PHYRO	P08946	phyllomedus
31	11	42.3	9	1	TKC1_CALVO	P41517	calliphora
32	11	42.3	10	1	TRP6_LEUMA	P81738	leucophaea
33	11	42.3	11	1	LPW_THETH	P05624	thermus the
34	11	42.3	11	1	RANC_RANPI	P08951	rana pipien
35	11	42.3	12	1	LMT1_LOCFI	P22395	locusta mig
36	11	42.3	12	1	TA10_TREME	P01371	tremella me
37	11	42.3	13	1	PSAE_PEA	P20118	pisum sativ
38	11	42.3	14	1	UHA1_CANFA	P99503	canis famil
39	11	42.3	15	1	GTS_ASADI	P83246	asaphis dic
40	11	42.3	15	1	UC08_MAIZE	P80614	zea mays (m
41	11	42.3	15	1	UN01_PINPS	P81106	pinus pinas
42	11	42.3	16	1	SAL3_ONCMY	P82240	oncorhynchu
43	11	42.3	16	1	SSIT_STRMB	P83544	streptomyce
44	11	42.3	17	1	A45K_MYCBO	P80069	mycobacteri
45	11	42.3	17	1	BOL5_MEGPE	P07496	megabombus
46	11	42.3	17	1	BTID_BOOMI	P83607	boophilus m
47	11	42.3	17	1	RANR_RANRU	P08952	rana rugosa
48	11	42.3	17	1	YALA_TRYBB	P17961	trypanosoma
49	11	42.3	18	1	HEX_ADECU	P35985	canine aden
50	11	42.3	18	1	MLB_HORSE	P01202	equus cabal
51	11	42.3	19	1	ANP7_ELEGR	P11920	eleginus gr
52	11	42.3	19	1	PHSL_DESBN	P13066	desulfovibr
53	11	42.3	19	1	PSAE_CUCSA	P42047	cucumis sat
54	11	42.3	20	1	ABP_PIG	Q9trc7	sus scrofa
55	11	42.3	20	1	COG1_CHIOP	P34153	chionoecete
56	11	42.3	20	1	MCRG_METTE	P22950	methanosarc
57	10	38.5	7	1	ALL3_CARMA	P81806	carcinus ma
58	10	38.5	7	1	ALL4_CARMA	P81807	carcinus ma
59	10	38.5	7	1	ALL5_CARMA	P81808	carcinus ma
60	10	38.5	7	1	MNP1_LEPDE	P42984	leptinotars
61	10	38.5	8	1	ALL7_CARMA	P81809	carcinus ma
62	10	38.5	8	1	ALL8_CARMA	P81811	carcinus ma
63	10	38.5	8	1	ALL9_CARMA	P81812	carcinus ma
64	10	38.5	8	1	CLP_THICU	P80488	thiobacillu
65	10	38.5	8	1	PPK2_PERAM	P82692	periplaneta
66	10	38.5	9	1	AL10_CARMA	P81813	carcinus ma
67	10	38.5	9	1	LITO_LITAU	P08945	litoria aur
68	10	38.5	9	1	NEUX_HUMAN	P04277	homo sapien
69	10	38.5	9	1	RT33_BOVIN	P82926	bos taurus
70	10	38.5	10	1	FARP_MYTED	P42560	mytilus edu
71	10	38.5	10	1	GRP_RANRI	P23260	rana ridibu
72	10	38.5	10	1	TKL3_LOCFI	P30249	locusta mig
73	10	38.5	10	1	UXB1_YEAST	P99012	saccharomyc
74	10	38.5	11	1	TKN1_UPEIN	P82026	uperoleia i

## ALIGNMENTS

## RESULT 1

RT16\_BOVIN

ID RT16\_BOVIN STANDARD; PRT; 20 AA.  
 AC P82915;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DT 28-FEB-2003 (Rel. 41, Last annotation update)  
 DE Mitochondrial 28S ribosomal protein S16 (MRP-S16) (Fragments).  
 GN MRPS16 OR RPMS16.  
 OS Bos taurus (Bovine).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;  
 OC Bovidae; Bovinae; Bos.  
 OX NCBI\_TaxID=9913;  
 RN [1]  
 RP SEQUENCE.  
 RC TISSUE=Liver;  
 RX MEDLINE=21276436; PubMed=11279123;  
 RA Koc E.C., Burkhart W., Blackburn K., Moseley A., Spremulli L.L.;  
 RT "The small subunit of the mammalian mitochondrial ribosome:  
 RT identification of the full complement of ribosomal proteins present.";  
 RL J. Biol. Chem. 276:19363-19374(2001).  
 CC -!- SUBUNIT: Component of the mitochondrial ribosome small subunit  
 CC (28S) which comprises a 12S rRNA and about 30 distinct proteins.  
 CC -!- SUBCELLULAR LOCATION: Mitochondrial.  
 CC -!- SIMILARITY: Belongs to the S16P family of ribosomal proteins.  
 DR InterPro; IPR000307; Ribosomal\_S16.  
 DR PROSITE; PS00732; RIBOSOMAL\_S16; PARTIAL.  
 KW Ribosomal protein; Mitochondrion.  
 FT NON\_TER 1 1  
 FT NON\_CONS 9 10  
 FT NON\_TER 20 20  
 SQ SEQUENCE 20 AA; 2205 MW; BC042AC57F236CE5 CRC64;

Query Match 61.5%; Score 16; DB 1; Length 20;  
 Best Local Similarity 42.9%; Pred. No. 2e+02;  
 Matches 3; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 PXAXXHA 7  
 | ||  
 Db 1 PMPNSHA 7

Search completed: April 5, 2004, 09:04:23  
 Job time : 27 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2004, 09:01:52 ; Search time 20 Seconds  
(without alignments)  
33.667 Million cell updates/sec

Title: US-09-972-772A-16  
Perfect score: 26  
Sequence: 1 PXAXXHA 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 3885

Minimum DB seq length: 0  
Maximum DB seq length: 20

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 1000 summaries

Database : PIR\_78:\*  
1: pir1:\*  
2: pir2:\*  
3: pir3:\*  
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	%		DB	ID	Description
		Query	Match Length			
1	17	65.4	12	2	S65730	hemoglobin, extrac
2	16	61.5	15	2	S36893	ribosomal protein
3	16	61.5	20	2	S72501	protein kinase C i
4	15	57.7	20	2	PH0110	style glycoprotein
5	14	53.8	14	2	PL0142	carbon-monoxide de
6	14	53.8	15	2	B45133	casein kinase II (
7	14	53.8	20	2	S15861	estrogen receptor
8	13	50.0	5	2	JN0860	peptidyl-dipeptida
9	13	50.0	13	1	NTKN2G	alpha-conotoxin GI
10	13	50.0	14	2	S22236	lipoxygenase (EC 1
11	13	50.0	15	1	NTKNAG	alpha-conotoxin GI
12	13	50.0	15	2	S24159	leukocyte elastase
13	13	50.0	16	2	A60551	leukocyte elastase

14	13	50.0	16	2	PH0137	T-cell receptor be
15	13	50.0	19	2	S77993	cytochrome-c oxida
16	13	50.0	20	2	B53875	creatine kinase (E
17	13	50.0	20	2	A53875	creatine kinase (E
18	13	50.0	20	2	PQ0688	photosystem I 14.0
19	13	50.0	20	2	PQ0687	photosystem I 14.1
20	13	50.0	20	2	S78759	ribosomal protein
21	12	46.2	4	2	PT0712	T-cell receptor be
22	12	46.2	9	2	A31576	xylose isomerase (
23	12	46.2	10	1	ECLQ4M	tachykinin IV - mi
24	12	46.2	10	2	S43625	cytochrome-c oxida
25	12	46.2	10	2	PH1592	Ig H chain V-D-J r
26	12	46.2	11	2	S65395	chemical-sense-rel
27	12	46.2	13	2	I51905	collecting duct wa
28	12	46.2	14	2	S48685	extension protein
29	12	46.2	14	2	PS0258	38K protein 3228 -
30	12	46.2	15	2	PA0059	protein QF200021 -
31	12	46.2	15	2	A60221	apolipoprotein A-I
32	12	46.2	15	2	B32800	hypothetical prote
33	12	46.2	15	2	S30608	translation elonga
34	12	46.2	15	2	S08301	epidermal growth f
35	12	46.2	15	2	C56979	collagen alpha 1(I
36	12	46.2	16	2	A39109	hypothetical prote
37	12	46.2	16	2	PC1299	subtilisin (EC 3.4
38	12	46.2	16	2	S33589	beta-crystallin A4
39	12	46.2	17	2	A60317	glucagon-like pept
40	12	46.2	17	2	A49635	Golli-mbp - human
41	12	46.2	17	2	S57555	T cell receptor V-
42	12	46.2	17	2	A46218	ubiquinol-cytochro
43	12	46.2	18	2	I51427	hemoglobin alpha c
44	12	46.2	18	2	S55501	thrombospondin pre
45	12	46.2	18	2	A60277	pilin - Vibrio par
46	12	46.2	18	2	F27480	hydrogenase (EC 1.
47	12	46.2	19	2	S20289	cytochrome-c oxida
48	12	46.2	19	2	A48400	phosphocarrier pro
49	12	46.2	19	2	S63489	dissimilatory sulf
50	12	46.2	20	2	B37520	glutathione transf
51	12	46.2	20	2	S29099	glutathione transf
52	12	46.2	20	2	S71869	glutathione transf
53	12	46.2	20	2	A14344	alanine transamina
54	12	46.2	20	2	PH0111	style glycoprotein
55	12	46.2	20	2	S33787	pancreatic elastas
56	12	46.2	20	2	B48400	phosphocarrier pro
57	12	46.2	20	2	PS0028	flagellar motor sw
58	12	46.2	20	2	S63490	dissimilatory sulf
59	12	46.2	20	2	A20569	C-reactive protein
60	12	46.2	20	2	S27350	lysophospholipase
61	12	46.2	20	2	PQ0537	arylhydroxamic aci
62	12	46.2	20	2	A60897	class I histocompa
63	12	46.2	20	2	S21244	H+-transporting tw
64	11	42.3	6	2	S71349	beta-crystallin B2
65	11	42.3	6	4	S15596	orf 3 rara 5'-regi
66	11	42.3	8	2	PT0311	Ig heavy chain CRD
67	11	42.3	9	2	S07241	litorin - Rohde's
68	11	42.3	9	2	S10920	venom protein HR-3
69	11	42.3	10	2	A61289	streptopain (EC 3.
70	11	42.3	10	2	A46491	C3 homolog HX - in



# ALIGNMENTS

RESULT 1

S65730

hemoglobin, extracellular, component - earthworm (*Lumbricus terrestris*)  
(fragment)

C;Species: *Lumbricus terrestris* (common earthworm)

C;Date: 06-Dec-1996 #sequence\_revision 13-Mar-1997 #text\_change 13-Mar-1997

C;Accession: S65730

R;Fushitani, K.; Higashiyama, K.; Asao, M.; Hosokawa, K.

Biochim. Biophys. Acta 1292, 273-280, 1996

A;Title: Characterization of the constituent polypeptides of the extracellular hemoglobin from *Lumbricus terrestris*: heterogeneity and discovery of a new linker chain L4.

A;Reference number: S65721; MUID:96176855; PMID:8597573

A;Accession: S65730

A;Status: preliminary

A;Molecule type: protein

A;Residues: 1-12 <FUS>

Query Match 65.4%; Score 17; DB 2; Length 12;

Best Local Similarity 50.0%; Pred. No. 1e+02;

Matches 3; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 PXAXXH 6

| | |

Db 3 PSARDH 8

Search completed: April 5, 2004, 09:05:41

Job time : 29 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2004, 09:01:52 ; Search time 20 Seconds  
(without alignments)  
33.667 Million cell updates/sec

Title: US-09-972-772A-16  
Perfect score: 26  
Sequence: 1 PXAXXHA 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 3885

Minimum DB seq length: 0  
Maximum DB seq length: 20

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 1000 summaries

Database : PIR 78:\*  
1: pir1:\*  
2: pir2:\*  
3: pir3:\*  
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query		DB	ID	Description
		Match	Length			
1	17	65.4	12	2	S65730	hemoglobin, extrac
2	16	61.5	15	2	S36893	ribosomal protein
3	16	61.5	20	2	S72501	protein kinase C i
4	15	57.7	20	2	PH0110	style glycoprotein
5	14	53.8	14	2	PL0142	carbon-monoxide de
6	14	53.8	15	2	B45133	casein kinase II (
7	14	53.8	20	2	S15861	estrogen receptor
8	13	50.0	5	2	JN0860	peptidyl-dipeptida
9	13	50.0	13	1	NTKN2G	alpha-conotoxin GI
10	13	50.0	14	2	S22236	lipoxxygenase (EC 1
11	13	50.0	15	1	NTKNAG	alpha-conotoxin GI
12	13	50.0	15	2	S24159	leukocyte elastase
13	13	50.0	16	2	A60551	leukocyte elastase

14	13	50.0	16	2	PH0137	T-cell receptor be
15	13	50.0	19	2	S77993	cytochrome-c oxida
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17	13	50.0	20	2	A53875	creatine kinase (E
18	13	50.0	20	2	PQ0688	photosystem I 14.0
19	13	50.0	20	2	PQ0687	photosystem I 14.1
20	13	50.0	20	2	S78759	ribosomal protein
21	12	46.2	4	2	PT0712	T-cell receptor be
22	12	46.2	9	2	A31576	xylose isomerase (
23	12	46.2	10	1	ECLQ4M	tachykinin IV - mi
24	12	46.2	10	2	S43625	cytochrome-c oxida
25	12	46.2	10	2	PH1592	Ig H chain V-D-J r
26	12	46.2	11	2	S65395	chemical-sense-rel
27	12	46.2	13	2	I51905	collecting duct wa
28	12	46.2	14	2	S48685	extension protein
29	12	46.2	14	2	PS0258	38K protein 3228 -
30	12	46.2	15	2	PA0059	protein QF200021 -
31	12	46.2	15	2	A60221	apolipoprotein A-I
32	12	46.2	15	2	B32800	hypothetical prote
33	12	46.2	15	2	S30608	translation elonga
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36	12	46.2	16	2	A39109	hypothetical prote
37	12	46.2	16	2	PC1299	subtilisin (EC 3.4
38	12	46.2	16	2	S33589	beta-crystallin A4
39	12	46.2	17	2	A60317	glucagon-like pept
40	12	46.2	17	2	A49635	Golli-mbp - human
41	12	46.2	17	2	S57555	T cell receptor V-
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46	12	46.2	18	2	F27480	hydrogenase (EC 1.
47	12	46.2	19	2	S20289	cytochrome-c oxida
48	12	46.2	19	2	A48400	phosphocarrier pro
49	12	46.2	19	2	S63489	dissimilatory sulf
50	12	46.2	20	2	B37520	glutathione transf
51	12	46.2	20	2	S29099	glutathione transf
52	12	46.2	20	2	S71869	glutathione transf
53	12	46.2	20	2	A14344	alanine transamina
54	12	46.2	20	2	PH0111	style glycoprotein
55	12	46.2	20	2	S33787	pancreatic elastas
56	12	46.2	20	2	B48400	phosphocarrier pro
57	12	46.2	20	2	PS0028	flagellar motor sw
58	12	46.2	20	2	S63490	dissimilatory sulf
59	12	46.2	20	2	A20569	C-reactive protein
60	12	46.2	20	2	S27350	lysophospholipase
61	12	46.2	20	2	PQ0537	arylhydroxamic aci
62	12	46.2	20	2	A60897	class I histocompa
63	12	46.2	20	2	S21244	H+-transporting tw
64	11	42.3	6	2	S71349	beta-crystallin B2
65	11	42.3	6	4	S15596	orf 3 rara 5'-regi
66	11	42.3	8	2	PT0311	Ig heavy chain CRD
67	11	42.3	9	2	S07241	litorin - Rohde's
68	11	42.3	9	2	S10920	venom protein HR-3
69	11	42.3	10	2	A61289	streptopain (EC 3.
70	11	42.3	10	2	A46491	C3 homolog HX - in

# ALIGNMENTS

## RESULT 1

S65730

hemoglobin, extracellular, component - earthworm (*Lumbricus terrestris*)  
(fragment)

C;Species: *Lumbricus terrestris* (common earthworm)

C;Date: 06-Dec-1996 #sequence\_revision 13-Mar-1997 #text\_change 13-Mar-1997

C;Accession: S65730

R;Fushitani, K.; Higashiyama, K.; Asao, M.; Hosokawa, K.

Biochim. Biophys. Acta 1292, 273-280, 1996

A;Title: Characterization of the constituent polypeptides of the extracellular hemoglobin from *Lumbricus terrestris*: heterogeneity and discovery of a new linker chain L4.

A;Reference number: S65721; MUID:96176855; PMID:8597573

A;Accession: S65730

A;Status: preliminary

A;Molecule type: protein

A;Residues: 1-12 <FUS>

Query Match 65.4%; Score 17; DB 2; Length 12;

Best Local Similarity 50.0%; Pred. No. 1e+02;

Matches 3; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 PXAXXH 6

| | |

Db 3 PSARDH 8

Search completed: April 5, 2004, 09:05:41

Job time : 29 secs

OM protein - protein search, using sw model

Run on: April 5, 2004, 09:05:28 ; Search time 40 Seconds  
(without alignments)  
45.955 Million cell updates/sec

Title: US-09-972-772A-16  
Perfect score: 26  
Sequence: 1 PXAXXHA 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1071436 seqs, 262597696 residues

Total number of hits satisfying chosen parameters: 205293

Minimum DB seq length: 0  
Maximum DB seq length: 20

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 1000 summaries

Database : Published Applications\_AA:\*

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- 2: /cgn2\_6/ptodata/2/pubpaa/PCT\_NEW\_PUB.pep:\*
- 3: /cgn2\_6/ptodata/2/pubpaa/US06\_NEW\_PUB.pep:\*
- 4: /cgn2\_6/ptodata/2/pubpaa/US06\_PUBCOMB.pep:\*
- 5: /cgn2\_6/ptodata/2/pubpaa/US07\_NEW\_PUB.pep:\*
- 6: /cgn2\_6/ptodata/2/pubpaa/PCTUS\_PUBCOMB.pep:\*
- 7: /cgn2\_6/ptodata/2/pubpaa/US08\_NEW\_PUB.pep:\*
- 8: /cgn2\_6/ptodata/2/pubpaa/US08\_PUBCOMB.pep:\*
- 9: /cgn2\_6/ptodata/2/pubpaa/US09A\_PUBCOMB.pep:\*
- 10: /cgn2\_6/ptodata/2/pubpaa/US09B\_PUBCOMB.pep:\*
- 11: /cgn2\_6/ptodata/2/pubpaa/US09C\_PUBCOMB.pep:\*
- 12: /cgn2\_6/ptodata/2/pubpaa/US09\_NEW\_PUB.pep:\*
- 13: /cgn2\_6/ptodata/2/pubpaa/US10A\_PUBCOMB.pep:\*
- 14: /cgn2\_6/ptodata/2/pubpaa/US10B\_PUBCOMB.pep:\*
- 15: /cgn2\_6/ptodata/2/pubpaa/US10C\_PUBCOMB.pep:\*
- 16: /cgn2\_6/ptodata/2/pubpaa/US10\_NEW\_PUB.pep:\*
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- 18: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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No.	Score	Match	Length	DB		

1	21	80.8	17	15	US-10-289-009-14	Sequence 14, Appl
2	21	80.8	18	15	US-10-289-009-13	Sequence 13, Appl
3	21	80.8	19	15	US-10-289-009-12	Sequence 12, Appl
4	20	76.9	7	9	US-09-972-772-16	Sequence 16, Appl
5	20	76.9	7	9	US-09-972-772-17	Sequence 17, Appl
6	20	76.9	7	13	US-10-001-945-16	Sequence 16, Appl
7	20	76.9	7	13	US-10-001-945-17	Sequence 17, Appl
8	20	76.9	7	14	US-10-138-935-16	Sequence 16, Appl
9	20	76.9	7	14	US-10-138-935-17	Sequence 17, Appl
10	19	73.1	10	10	US-09-572-404B-2288	Sequence 2288, App
11	19	73.1	12	14	US-10-286-457-222	Sequence 222, App
12	19	73.1	20	12	US-10-430-685-80	Sequence 80, Appl
13	18	69.2	10	9	US-09-753-126-113	Sequence 113, App
14	18	69.2	10	10	US-09-896-896A-77	Sequence 77, Appl
15	18	69.2	10	10	US-09-572-404B-3546	Sequence 3546, Ap
16	18	69.2	10	15	US-10-330-697-113	Sequence 113, App
17	18	69.2	11	10	US-09-974-879-425	Sequence 425, App
18	18	69.2	11	10	US-09-305-736-425	Sequence 425, App
19	18	69.2	11	11	US-09-818-683-425	Sequence 425, App
20	18	69.2	11	12	US-10-621-401-425	Sequence 425, App
21	18	69.2	13	12	US-10-433-561-150	Sequence 150, App
22	18	69.2	14	10	US-09-273-217-3	Sequence 3, Appli
23	18	69.2	14	12	US-10-433-561-151	Sequence 151, App
24	18	69.2	15	9	US-09-821-883-16	Sequence 16, Appl
25	18	69.2	20	14	US-10-094-401-137	Sequence 137, App
26	18	69.2	20	14	US-10-280-066-354	Sequence 354, App
27	18	69.2	20	15	US-10-462-262-105	Sequence 105, App
28	17	65.4	9	10	US-09-799-250-256	Sequence 256, App
29	17	65.4	9	10	US-09-799-250-341	Sequence 341, App
30	17	65.4	9	10	US-09-799-250-439	Sequence 439, App
31	17	65.4	9	10	US-09-799-250-550	Sequence 550, App
32	17	65.4	9	10	US-09-799-250-660	Sequence 660, App
33	17	65.4	10	10	US-09-799-250-82	Sequence 82, Appl
34	17	65.4	10	10	US-09-799-250-176	Sequence 176, App
35	17	65.4	10	10	US-09-799-250-290	Sequence 290, App
36	17	65.4	10	10	US-09-799-250-310	Sequence 310, App
37	17	65.4	10	10	US-09-799-250-376	Sequence 376, App
38	17	65.4	10	10	US-09-799-250-389	Sequence 389, App
39	17	65.4	10	10	US-09-799-250-406	Sequence 406, App
40	17	65.4	10	10	US-09-799-250-589	Sequence 589, App
41	17	65.4	10	10	US-09-799-250-598	Sequence 598, App
42	17	65.4	10	10	US-09-799-250-709	Sequence 709, App
43	17	65.4	10	10	US-09-799-250-713	Sequence 713, App
44	17	65.4	12	10	US-09-954-385-403	Sequence 403, App
45	17	65.4	12	14	US-10-254-446A-220	Sequence 220, App
46	17	65.4	12	14	US-10-286-457-184	Sequence 184, App
47	17	65.4	13	9	US-09-994-485-21	Sequence 21, Appl
48	17	65.4	13	9	US-09-832-292-15	Sequence 15, Appl
49	17	65.4	14	14	US-10-185-050-222	Sequence 222, App
50	17	65.4	15	8	US-08-955-373-7	Sequence 7, Appli
51	17	65.4	15	10	US-09-964-821B-27	Sequence 27, Appl
52	17	65.4	15	14	US-10-225-567A-1619	Sequence 1619, Ap
53	17	65.4	15	14	US-10-268-332-27	Sequence 27, Appl
54	17	65.4	16	8	US-08-955-373-8	Sequence 8, Appli
55	17	65.4	17	9	US-09-864-761-42256	Sequence 42256, A
56	17	65.4	18	10	US-09-983-802-376	Sequence 376, App

# ALIGNMENTS

## RESULT 1

US-10-289-009-14

; Sequence 14, Application US/10289009

; Publication No. US20030228700A1

; GENERAL INFORMATION:

; APPLICANT: Peters, Eric C.

; APPLICANT: Brock, Ansgar

; APPLICANT: Ericson, Christer

; APPLICANT: IRM LLC

; TITLE OF INVENTION: Labeling Reagent and Methods of Use

; FILE REFERENCE: 021288-000230US

; CURRENT APPLICATION NUMBER: US/10/289,009

; CURRENT FILING DATE: 2003-04-01

; PRIOR APPLICATION NUMBER: US 60/332,988

; PRIOR FILING DATE: 2001-11-05

; PRIOR APPLICATION NUMBER: US 60/385,835

; PRIOR FILING DATE: 2002-06-03

; PRIOR APPLICATION NUMBER: US 60/410,382

; PRIOR FILING DATE: 2002-09-12

; NUMBER OF SEQ ID NOS: 29

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 14

; LENGTH: 17

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Description of Artificial Sequence:equine

; OTHER INFORMATION: myoglobin tryptic polypeptide #13

US-10-289-009-14

Query Match 80.8%; Score 21; DB 15; Length 17;

Best Local Similarity 57.1%; Pred. No. 1.3e+02;

Matches 4; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 PXAXXHA 7

| | ||

Db 9 PLAQSHA 15

## RESULT 4

US-09-972-772-16

; Sequence 16, Application US/09972772

; Publication No. US20020193298A1

; GENERAL INFORMATION:

; APPLICANT: Olson, Gary L.

; APPLICANT: Self, Christopher

; APPLICANT: Lee, Lily

; APPLICANT: Cook, Charles M.

; TITLE OF INVENTION: THERAPEUTIC AGENTS AND METHODS OF USE THEREOF FOR THE

; TITLE OF INVENTION: MODULATION OF ANGIOGENESIS

; FILE REFERENCE: PPI-106CP

; CURRENT APPLICATION NUMBER: US/09/972,772

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; CURRENT FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 09/704,251
; PRIOR FILING DATE: 2000-11-01
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 16
;   LENGTH: 7
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Motifs
;   NAME/KEY: VARIANT
;   LOCATION: 2
;   OTHER INFORMATION: Xaa at position 2 represents L-cyclohexylalanine
;   NAME/KEY: VARIANT
;   LOCATION: 4
;   OTHER INFORMATION: Xaa at position 4 represents L-a-aminobutyryl
;   NAME/KEY: VARIANT
;   LOCATION: 5
;   OTHER INFORMATION: Xaa at position 5 represents methylated cysteine
US-09-972-772-16

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Query Match          76.9%; Score 20; DB 9; Length 7;
Best Local Similarity 100.0%; Pred. No. 9.6e+05;
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Qy      1 PXAXXHA 7
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Db      1 PXAXXHA 7

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; Sequence 2288, Application US/09572404B
; Publication No. US20030078374A1
; GENERAL INFORMATION:
; APPLICANT: Proteom Ltd
; TITLE OF INVENTION: Complementary peptide ligands from the human genome
; FILE REFERENCE: Human patent
; CURRENT APPLICATION NUMBER: US/09/572,404B
; CURRENT FILING DATE: 2000-05-17
; NUMBER OF SEQ ID NOS: 4203
; SOFTWARE: ProtPatent version 1.0
; SEQ ID NO 2288
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: Homo Sapiens
;   FEATURE:
;   OTHER INFORMATION: sequence located in MEOX2 OR MOX2 OR GAX at 99-108 and
may interact with
;   OTHER INFORMATION: Sequence 2287 in this patent.
US-09-572-404B-2288

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Query Match          73.1%; Score 19; DB 10; Length 10;
Best Local Similarity 42.9%; Pred. No. 2.7e+02;

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Matches 3; Conservative 1; Mismatches 3; Indels 0; Gaps 0;  
Qy 1 PXAXXHA 7  
| | |:  
Db 2 PSAARHS 8

Search completed: April 5, 2004, 09:10:37  
Job time : 45 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: April 5, 2004, 09:02:43 ; Search time 23 Seconds  
(without alignments)  
15.712 Million cell updates/sec

Title: US-09-972-772A-16  
Perfect score: 26  
Sequence: 1 PXAXXHA 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 173459

Minimum DB seq length: 0  
Maximum DB seq length: 20

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 1000 summaries

Database : Issued\_Patents\_AA:\*  
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3: /cgn2\_6/ptodata/2/iaa/6A\_COMB.pep:\*  
4: /cgn2\_6/ptodata/2/iaa/6B\_COMB.pep:\*  
5: /cgn2\_6/ptodata/2/iaa/PCTUS\_COMB.pep:\*  
6: /cgn2\_6/ptodata/2/iaa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		%					Description
Result	Query	Match	Length	DB	ID		
No.	Score						
1	21	80.8	11	5	PCT-US91-09152-16	Sequence 16, Appl	
2	20	76.9	7	4	US-09-704-251-16	Sequence 16, Appl	
3	20	76.9	7	4	US-09-704-251-17	Sequence 17, Appl	
4	18	69.2	9	2	US-08-340-283-22	Sequence 22, Appl	
5	18	69.2	9	2	US-08-340-283-84	Sequence 84, Appl	
6	18	69.2	11	3	US-08-893-526A-16	Sequence 16, Appl	
7	18	69.2	16	2	US-08-528-057-12	Sequence 12, Appl	
8	17	65.4	6	1	US-08-406-347A-20	Sequence 20, Appl	
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72	15	57.7	11	3	US-08-750-419A-21	Sequence 21, Appl
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## ALIGNMENTS

RESULT 1  
PCT-US91-09152-16  
; Sequence 16, Application PC/TUS9109152  
; GENERAL INFORMATION:  
; APPLICANT: Kubiak, Teresa M.  
; APPLICANT: Sharma, Satish K.  
; TITLE OF INVENTION: Fusion Polypeptides  
; NUMBER OF SEQUENCES: 42  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Upjohn Company - Corp. Patents & Trademarks  
; STREET: 301 Henrietta Street  
; CITY: Kalamazoo  
; STATE: Michigan  
; COUNTRY: USA  
; ZIP: 49001  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: diskette (3M 3.5, DS double side 1.0 MB)  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: WordPerfect 5.1  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: PCT/US91/09152  
; FILING DATE: 19911212  
; CLASSIFICATION: 514  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US07/626,727  
; FILING DATE: 13/12/90  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US07/614,170  
; FILING DATE: 14/11/90  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: PCT/US90/02923  
; FILING DATE: 30/05/90  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US07/368,231  
; FILING DATE: 16/06/89  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US07/506,605  
; FILING DATE: 09/04/90  
; ATTORNEY/AGENT INFORMATION:  
; NAME: DeLuca, Mark  
; REGISTRATION NUMBER: 33229  
; REFERENCE/DOCKET NUMBER: 4595  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 616 385 5210  
; TELEFAX: 616 385 6897  
; INFORMATION FOR SEQ ID NO: 16:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 11  
; TYPE: AMINO ACID  
; TOPOLOGY: linear  
PCT-US91-09152-16

Query Match

80.8%; Score 21; DB 5; Length 11;

Best Local Similarity 57.1%; Pred. No. 21;  
Matches 4; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 PXAXXHA 7  
| | |  
Db 3 PHAHAHA 9

RESULT 2

US-09-704-251-16  
; Sequence 16, Application US/09704251  
; Patent No. 6548477  
; GENERAL INFORMATION:  
; APPLICANT: Olson, Gary L.  
; APPLICANT: Self, Christopher  
; APPLICANT: Lee, Lily  
; APPLICANT: Cook, Charles M.  
; TITLE OF INVENTION: THERAPEUTIC AGENTS AND METHODS OF USE THEREOF FOR THE  
; TITLE OF INVENTION: MODULATION OF ANGIOGENESIS  
; FILE REFERENCE: PPI-106  
; CURRENT APPLICATION NUMBER: US/09/704,251  
; CURRENT FILING DATE: 2000-11-01  
; NUMBER OF SEQ ID NOS: 35  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 16  
; LENGTH: 7  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Motifs  
; OTHER INFORMATION: Xaa at position 2 represents L-cyclohexylalanine  
; OTHER INFORMATION: Xaa at position 4 represents L-a-aminobutyryl  
; OTHER INFORMATION: Xaa at position 5 represents methylated cysteine  
US-09-704-251-16

Query Match 76.9%; Score 20; DB 4; Length 7;  
Best Local Similarity 100.0%; Pred. No. 3e+05;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PXAXXHA 7  
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Db 1 PXAXXHA 7

RESULT 4

US-08-340-283-22  
; Sequence 22, Application US/08340283  
; Patent No. 5861318  
; GENERAL INFORMATION:  
; APPLICANT: Elhammer, Ake P.  
; TITLE OF INVENTION: A SCINTILLATION PROXIMITY ASSAY FOR  
; TITLE OF INVENTION: N-ACETYL GALACTOSAMINYLTRANSFERASE ACTIVITY  
; NUMBER OF SEQUENCES: 205  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Pharmacia and Upjohn, Inc., Intellect. Prop. Law  
; ADDRESSEE: (1920-32-1)

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; STREET: 301 Henrietta Street
; CITY: Kalamazoo
; STATE: Michigan
; COUNTRY: U.S.A.
; ZIP: 49001
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/340,283
; FILING DATE:
; CLASSIFICATION: 436
; ATTORNEY/AGENT INFORMATION:
; NAME: Wootton, Thomas A.
; REGISTRATION NUMBER: 35,004
; REFERENCE/DOCKET NUMBER: 4828
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (616) 385-7914
; TELEFAX: (616) 385-6897
; TELEX: 224401
; INFORMATION FOR SEQ ID NO: 22:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: unknown
; MOLECULE TYPE: peptide
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
; FRAGMENT TYPE: N-terminal
US-08-340-283-22

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Query Match          69.2%; Score 18; DB 2; Length 9;
Best Local Similarity 50.0%; Pred. No. 3e+05;
Matches      3; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

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Qy      1 PXAXXH 6
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Db      2 PHATSH 7

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Search completed: April 5, 2004, 09:06:16
Job time : 31 secs

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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: April 5, 2004, 08:57:37 ; Search time 53 Seconds  
(without alignments)  
37.318 Million cell updates/sec

Title: US-09-972-772A-16  
Perfect score: 26  
Sequence: 1 PXAXXHA 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 506618

Minimum DB seq length: 0  
Maximum DB seq length: 20

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 1000 summaries

Database : A\_Geneseq\_29Jan04:\*  
1: geneseqp1980s:\*  
2: geneseqp1990s:\*  
3: geneseqp2000s:\*  
4: geneseqp2001s:\*  
5: geneseqp2002s:\*  
6: geneseqp2003as:\*  
7: geneseqp2003bs:\*  
8: geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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	6	21	80.8	13	6	ABU14448	Abu14448 hFSH pept
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91	17	65.4	10	6	ABR15327	Abr15327	Human	can
92	17	65.4	10	6	ABR15524	Abr15524	Human	can
93	17	65.4	10	6	ABR15938	Abr15938	Human	can
94	17	65.4	10	6	ABR15307	Abr15307	Human	can
95	17	65.4	10	6	ABR15866	Abr15866	Human	can
96	17	65.4	10	7	ADD82505	Add82505	121P1F1	m
97	17	65.4	10	7	ADD82518	Add82518	121P1F1	m
98	17	65.4	10	7	ADD82727	Add82727	121P1F1	m
99	17	65.4	10	7	ADD83960	Add83960	121P1F1	m
100	17	65.4	10	7	ADD82535	Add82535	121P1F1	m
101	17	65.4	10	7	ADD84066	Add84066	121P1F1	m
102	17	65.4	10	7	ADD82305	Add82305	121P1F1	m
103	17	65.4	10	7	ADD82838	Add82838	121P1F1	m
104	17	65.4	10	7	ADD84072	Add84072	121P1F1	m
105	17	65.4	10	7	ADD82842	Add82842	121P1F1	m
106	17	65.4	10	7	ADD83945	Add83945	121P1F1	m
107	17	65.4	10	7	ADD82419	Add82419	121P1F1	m
108	17	65.4	10	7	ADD82211	Add82211	121P1F1	m
109	17	65.4	10	7	ADD83935	Add83935	121P1F1	m
110	17	65.4	10	7	ADD82439	Add82439	121P1F1	m
111	17	65.4	10	7	ADD82718	Add82718	121P1F1	m
112	17	65.4	11	6	ABM34920	Abm34920	Cancer	ba
113	17	65.4	11	6	ADB20733	Adb20733	MRP1	base
114	17	65.4	11	7	ADB87822	Adb87822	Human	UGT
115	17	65.4	11	7	ADB96805	Adb96805	Human	UGT
116	17	65.4	11	7	ADB91996	Adb91996	Human	UGT
117	17	65.4	12	3	AA92993	Aay92993	Transform	
118	17	65.4	12	5	AAU87878	Aau87878	PDZ	domai
119	17	65.4	12	6	ABR75367	Abr75367	Biologica	
120	17	65.4	12	6	ABU14214	Abu14214	N-termina	
121	17	65.4	12	6	ABU14216	Abu14216	N-termina	
122	17	65.4	12	6	ABU14400	Abu14400	C- or N-t	
123	17	65.4	12	6	ABU14399	Abu14399	C- or N-t	

## ALIGNMENTS

## RESULT 1

AAR25097

ID AAR25097 standard; protein; 11 AA.

XX

AC AAR25097;

XX

DT 25-MAR-2003 (revised)

DT 23-DEC-1992 (first entry)

XX

DE bGRF prodrug analogue 16.

XX

KW Bovine growth hormone releasing factor; dipeptidylpeptidase IV; DPP IV;  
KW purification; medicament.

XX

OS Synthetic.

XX

PN WO9210576-A1.

XX

PD 25-JUN-1992.

XX

PF 12-DEC-1991; 91WO-US009152.

XX

PR 13-DEC-1990; 90US-00626727.

XX

PA (UPJO ) UPJOHN CO.

XX

PI Kubiak TM, Sharma SK;

XX

DR WPI; 1992-234631/28.

XX

PT Non-naturally occurring fusion protein prodrug - is cleaved in-vivo by  
PT host di:peptidyl peptides IV to achieve sustained release, e.g. of growth  
PT hormone.

XX

PS Disclosure; Page 38; 55pp; English.

XX

CC The sequences given in AAR25082-109 and AAR25247-62 are N-terminally  
CC extended bovine growth hormone releasing factor (bGRF) prodrug analogues.  
CC The N-terminal extension is cleavable by dipeptidylpeptidase IV (DPP IV).  
CC Exposure of these bGRF prodrug analogues to DPP IV results in their  
CC conversion to desirable proteins. These prodrugs are converted to  
CC prodrugs using a patients endogenous DPP IV, thereby achieving sustained  
CC presence of the active drug in a patient and reducing the frequency of  
CC administration. These proteins are useful in purification methods were  
CC the N-terminal extension facilitates purification. They may also be used  
CC to prepare a medicament. (Updated on 25-MAR-2003 to correct PN field.)

XX

SQ Sequence 11 AA;

Query Match 80.8%; Score 21; DB 2; Length 11;

Best Local Similarity 57.1%; Pred. No. 87;

Matches 4; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 PXAXXHA 7

Db                    | | |  
                      3 PHAHAHA 9

RESULT 2

ABU14452

ID   ABU14452 standard; peptide; 13 AA.

XX

AC   ABU14452;

XX

DT   12-MAR-2003   (first entry)

XX

DE   hFSH peptide #15 used in multi-building block scan.

XX

KW   Biomolecule detection; pixel array; micro-array support;

KW   molecule binding; binding molecule; support surface; surface patch;

KW   high density arraying; enzyme-linked-assay; multi-building block scan;

KW   human follicle-stimulating hormone; hFSH.

XX

OS   Homo sapiens.

XX

PN   WO200266984-A2.

XX

PD   29-AUG-2002.

XX

PF   15-FEB-2002; 2002WO-NL000097.

XX

PR   16-FEB-2001; 2001EP-00200551.

XX

PA   (PEPS-) PEPSCAN SYSTEMS BV.

XX

PI   Puijk WC, Van Dijk E, Slootstra JW;

XX

DR   WPI; 2003-103161/09.

XX

PT   Novel support used for micro-arrays and its use in detection of (bio)  
PT   molecules.

XX

PS   Example 4; Fig 7C; 41pp; English.

XX

CC   The present invention relates to a method for the detection of  
CC   biomolecules in pixel arrays and the supports used for the micro-arrays.  
CC   The novel supports for the micro-arrays are suitable for determining the  
CC   binding of a first member molecule within a library of spots of tentative  
CC   first member binding molecules with a second member binding molecule. The  
CC   support is provided with a support surface where surface patches are  
CC   interspersed with surface areas that are materially distinct from the  
CC   patches. The support and method of the invention are useful for  
CC   identifying or obtaining a synthetic molecule comprising a binding site,  
CC   or a binding molecule capable of binding to a binding site. The molecule  
CC   is useful for interfering with, or effecting binding to a binding  
CC   molecule. The novel support for a micro-array and the method provide high  
CC   density arraying (testing many binding events in one go) and enzyme-  
CC   linked-assays (very sensitive) allowing the detection of more binding  
CC   pairs more rapidly. ABU14438-ABU14473 represent human follicle-  
CC   stimulating hormone (hFSH) peptides used in a multi-building block scan  
CC   in the method of the present invention

XX

SQ Sequence 13 AA;

Query Match 80.8%; Score 21; DB 6; Length 13;

Best Local Similarity 57.1%; Pred. No. 1e+02;

Matches 4; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 PXAXXHA 7

| | |

Db 2 PGAAHHA 8

Search completed: April 5, 2004, 09:04:10

Job time : 79 secs